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United Nations

Report of the Committee on the Peaceful Uses of Outer Space

Fifty-seventh session (11-20 June 2014)

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Chapter I

Introduction

1. The Committee on the Peaceful Uses of Outer Space held its fifty-seventh session in Vienna from 11 to 20 June 2014. The officers of the Committee were as follows:

Chair:	Azzedine Oussedik (Algeria)
First Vice-Chair:	Diego Stacey Moreno (Ecuador)
Second Vice-Chair/Rapporteur.	Samir Mohammed Raouf (Iraq)

A. Meetings of subsidiary bodies

2. The Scientific and Technical Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-first session in Vienna from 10 to 21 February 2014, under the chairmanship of Elöd Both (Hungary). The report of the Subcommittee was before the Committee (A/AC.105/1065).

3. The Legal Subcommittee of the Committee on the Peaceful Uses of Outer Space held its fifty-third session in Vienna from 24 March to 4 April 2014, under the chairmanship of Kai-Uwe Schrogl (Germany). The report of the Subcommittee was before the Committee (A/AC.105/1067).

B. Adoption of the agenda

4. At its opening meeting, the Committee adopted the following agenda:

1. Opening of the session.
2. Adoption of the agenda.
3. Election of officers.
4. Statement by the Chair.
5. General exchange of views.
6. Ways and means of maintaining outer space for peaceful purposes.
7. Report of the Scientific and Technical Subcommittee on its fifty-first session.
8. Report of the Legal Subcommittee on its fifty-third session.
9. Space and sustainable development.
10. Spin-off benefits of space technology: review of current status.
11. Space and water.
12. Space and climate change.
13. Use of space technology in the United Nations system.

14. Future role of the Committee.

15. Other matters.

16. Report of the Committee to the General Assembly.

C. Election of officers

5. At the 675th meeting of the Committee, on 11 June, Azzedine Oussedik (Algeria) was elected Chair of the Committee and Diego Stacey Moreno (Ecuador) was elected First Vice-Chair, each for a two-year term of office. Samir Mohammed Raouf (Iraq) and Xinmin Ma (China) were elected Second Vice-Chair/Rapporteur for 2014 and 2015, respectively.

6. Also at its 675th meeting, the Committee endorsed the election of Elöd Both (Hungary) as Chair of the Scientific and Technical Subcommittee and Kai-Uwe Schrogl (Germany) as Chair of the Legal Subcommittee for a two-year term of office, starting with the sessions of the Subcommittees held in 2014.

D. Membership

7. In accordance with General Assembly resolutions 1472 A (XIV), 1721 E (XVI), 3182 (XXVIII), 32/196 B, 35/16, 49/33, 56/51, 57/116, 59/116, 62/217, 65/97, 66/71 and 68/75 and decisions 45/315, 67/412 and 67/528, the Committee on the Peaceful Uses of Outer Space was composed of the following 76 States: Albania, Algeria, Argentina, Armenia, Australia, Austria, Azerbaijan, Belgium, Belarus, Benin, Bolivia (Plurinational State of), Brazil, Bulgaria, Burkina Faso, Cameroon, Canada, Chad, Chile, China, Colombia, Costa Rica, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Ghana, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Malaysia, Mexico, Mongolia, Morocco, Netherlands, Nicaragua, Niger, Nigeria, Pakistan, Peru, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Senegal, Sierra Leone, Slovakia, South Africa, Spain, Sudan, Sweden, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey, Ukraine, United Kingdom of Great Britain and Northern Ireland, United States of America, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

E. Attendance

8. Representatives of the following 63 States members of the Committee attended the session: Algeria, Argentina, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bolivia (Plurinational State of), Brazil, Burkina Faso, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czech Republic, Ecuador, Egypt, France, Germany, Greece, Hungary, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Jordan, Kazakhstan, Kenya, Lebanon, Libya, Malaysia, Mexico, Morocco, Netherlands, Nicaragua, Nigeria, Pakistan, Philippines, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, Slovakia, South Africa, Spain, Sudan, Switzerland, Syrian Arab Republic, Thailand, Tunisia, Turkey,

Ukraine, United Kingdom, United States, Uruguay, Venezuela (Bolivarian Republic of) and Viet Nam.

9. At its 675th meeting, on 11 June, the Committee decided to invite, at their request, observers for Côte d'Ivoire, the Dominican Republic, El Salvador, Israel, Luxembourg, Oman, Panama and the United Arab Emirates, as well as the Holy See, to attend its fifty-seventh session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

10. At the same meeting, the Committee decided to invite, at the request of the Sovereign Military Order of Malta, the observer for that organization to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

11. Also at the same meeting, the Committee decided to invite, at the request of the European Union, the observer for that organization to attend the session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

12. Observers for the Economic and Social Commission for Asia and the Pacific (ESCAP), the Economic and Social Commission for Western Asia (ESCWA), the Office for Disarmament Affairs of the Secretariat (in Vienna) and the International Telecommunication Union (ITU) attended the session.

13. The session was attended by observers for the following intergovernmental organizations with permanent observer status with the Committee: Asia-Pacific Space Cooperation Organization (APSCO), European Organization for Astronomical Research in the Southern Hemisphere (ESO), European Space Agency (ESA), European Telecommunications Satellite Organization (EUTELSAT-IGO), Inter-Islamic Network on Space Sciences and Technology (ISNET), International Organization of Space Communications (Intersputnik) and Regional Centre for Remote Sensing of North African States (CRTEAN).

14. The session was also attended by observers for the following non-governmental organizations with permanent observer status with the Committee: Association of Space Explorers (ASE), EURISY, European Space Policy Institute (ESPI), International Academy of Astronautics (IAA), International Astronautical Federation (IAF), International Institute of Space Law (IISL), International Society for Photogrammetry and Remote Sensing (ISPRS), Prince Sultan bin Abdulaziz International Prize for Water (PSIPW), Secure World Foundation (SWF), Space Generation Advisory Council (SGAC) and World Space Week Association (WSWA).

15. At its 675th meeting, the Committee decided to invite, at the request of the African Association of Remote Sensing of the Environment, the observer for that organization to attend its fifty-seventh session and to address it, as appropriate, on the understanding that it would be without prejudice to further requests of that nature and that it would not involve any decision of the Committee concerning status.

16. A list of representatives of States members of the Committee, States not members of the Committee, United Nations entities and other organizations attending the session is contained in A/AC.105/2014/INF/1.

F. General statements

17. Statements were made by representatives of the following States members of the Committee during the general exchange of views: Algeria, Argentina, Austria, Brazil, Canada, Chile, China, Colombia, Cuba, Ecuador, France, Germany, India, Indonesia, Iran (Islamic Republic of), Iraq, Italy, Japan, Kazakhstan, Kenya, Malaysia, Pakistan, Poland, Portugal, Republic of Korea, Romania, Russian Federation, Saudi Arabia, South Africa, Syrian Arab Republic, Thailand, Tunisia, Ukraine, United States and Venezuela (Bolivarian Republic of). Statements were also made by the representative of Morocco on behalf of the Group of African States and by the representative of Nicaragua on behalf of the Group of Latin American and Caribbean States. A statement was also made by the representative of Greece, together with the observer for the European Union, on behalf of the European Union. The observer for Luxembourg also made a statement. The observers for the African Association of Remote Sensing of the Environment, APSCO, CRTEAN, IAA, IAF, ISNET, ESA, EUTELSAT-IGO, SGAC, SWF and WSWA also made statements.

18. At the 675th meeting, the Chair delivered a statement highlighting the role played by the Committee and its Subcommittees as a unique global platform for enhancing efforts to strengthen the role of space tools for sustainable development to meet the challenges facing humanity. He stressed the need to strengthen regional and interregional cooperation in the field of space activities and in capacity-building, and to ensure closer coordination between the Committee and other intergovernmental bodies involved in the post-2015 development agenda and the establishment of sustainable development goals. He also drew attention to the role of the African Leadership Conference on Space Science and Technology for Sustainable Development in setting up a framework for regional cooperation fostering the mutualization of the human and material resources available within the African countries in order to address their concerns regarding the appropriateness of the methods of use of space tools and to meet common challenges related to the economic, social and cultural development of Africa.

19. At the 675th meeting, the Director of the Office for Outer Space Affairs of the Secretariat made a statement in which she reviewed the work carried out by the Office during the previous year, including outreach activities and cooperation and coordination with United Nations entities and international intergovernmental and non-governmental organizations. She also highlighted the current financial status of the Office and stressed the importance of the availability of financial and other resources for the successful implementation of the programme of work of the Office. She explained that, as the world was shaping new sustainable development goals and formulating the global development agenda in the post-2015 context, there was a unique opportunity to mobilize support and commitment at the global level to increase the role of space-based technology and information as an enabler for reaching the goals and objectives of the post-2015 development agenda.

20. At its 678th meeting, the Committee invited the Executive Director of the United Nations Office on Drugs and Crime and Director-General of the United Nations Office at Vienna, Yury Fedotov, to make a statement. He highlighted that as the global community moved towards the post-2015 development agenda, it was the right time to make the overall governance of the peaceful uses of outer space an integral part of the international community's global commitments on sustainable development. He also underlined that there was a growing need to ensure that the spatial data infrastructure was recognized as a means of achieving development objectives.

21. The Committee welcomed the election of Azzedine Oussedik (Algeria) as its Chair, Diego Stacey Moreno (Ecuador) as its First Vice-Chair and Samir Mohammed Raouf (Iraq) and Xinmin Ma (China) to the office of Second Vice-Chair/Rapporteur of the Committee for 2014 and 2015, respectively.

22. The Committee expressed its appreciation to Yasushi Horikawa (Japan), the outgoing Chair, Filipe Duarte Santos (Portugal), the outgoing First Vice-Chair, and Piotr Wolanski (Poland), the outgoing Second Vice-Chair/Rapporteur, for their excellent work and achievements during their terms of office.

23. The Committee welcomed Simonetta Di Pippo to the post of Director of the Office for Outer Space Affairs.

24. The Committee expressed its appreciation and gratitude to Mazlan Othman, former Director of the Office for Outer Space Affairs, for her dedication to the work of the Committee.

25. The Committee welcomed Belarus and Ghana as new members of the Committee on the Peaceful Uses of Outer Space. ISNET was welcomed as the newest permanent observer of the Committee.

26. The Committee congratulated the United States on the forty-fifth anniversary of the Apollo 11 mission, which had placed humans on the surface of the Moon for the first time.

27. The Committee also recognized the fiftieth anniversary of European cooperation in space.

28. The Committee noted with appreciation the special panel on the topic "Italy and space: prospects, opportunities and benefits of human spaceflight activities for sustainable development on our planet Earth", organized by the Italian delegation and moderated by Giorgio Pacifici (Italy). The panel members were Ambassador Filippo Formica (Italy), Simonetta Di Pippo (Director of the Office for Outer Space Affairs) and the Italian astronauts Samantha Cristoforetti (ESA) and Luca Parmitano (ESA), the latter participating via satellite video from Houston, United States.

29. The Committee welcomed with appreciation the exhibitions held at the Vienna International Centre during the current session of the Committee. Algeria and South Africa were co-hosting an exhibition from 11 to 20 June on their national space activities. The Russian Federation was presenting an exhibition on the Global Navigation Satellite System (GLONASS) from 11 to 20 June.

30. The Committee also welcomed the donation by Poland of a model Lem satellite from the BRITE constellation and a painting of Copernicus, and the donation by China of a full-scale model of the Yutu lunar rover, to be displayed in

the permanent exhibit of the Office for Outer Space Affairs at the Vienna International Centre, as well as the presentation of an exhibition by China on its lunar exploration programme in conjunction with the model of the Yutu lunar rover.

31. The Committee heard the following presentations:

(a) "Future of space industry business in Thailand and the Association of Southeast Asian Nations (ASEAN)", by the representative of Thailand;

(b) "Space activities and regulatory framework of Luxembourg: an overview in relation to the application for membership in the Committee on the Peaceful Uses of Outer Space", by the representative of Luxembourg;

(c) "China's space policy, legislation and international cooperation", by the representative of China;

(d) "China space station and international cooperation", by the representative of China;

(e) "The future of human spaceflight: celebrating Apollo and looking to Mars", by the representative of the United States;

(f) "'Japanese style' contribution on the International Space Station (ISS)", by the representative of Japan;

(g) "Results from two capacity-building workshops on the prevention of and response to natural disasters in Mesoamerica", by the observer for SWF;

(h) "The Space Generation Fusion Forum 2014: report and highlights", by the observer for SGAC.

32. The Committee noted with appreciation the successful completion of the sixty-fourth International Astronautical Congress, held in Beijing from 23 to 27 September 2013. The Committee noted with satisfaction that the sixty-fifth Congress would be hosted by the Canadian Aeronautics and Space Institute in Toronto from 29 September to 3 October 2014.

33. The Committee noted with satisfaction that the International Space Exploration Forum (ISEF) had been held in Washington in January 2014, hosted by the United States in collaboration with IAA, with a large number of States attending.

G. Adoption of the report of the Committee

34. After considering the various items before it, the Committee, at its 689th meeting, on 20 June 2014, adopted its report to the General Assembly containing the recommendations and decisions set out below.

Chapter II

Recommendations and decisions

A. Ways and means of maintaining outer space for peaceful purposes

35. In accordance with paragraph 21 of General Assembly resolution 68/75, the Committee continued its consideration, as a matter of priority, of ways and means of maintaining outer space for peaceful purposes, including consideration of ways to promote regional and interregional cooperation and the role that space technology could play in the implementation of recommendations of the United Nations Conference on Sustainable Development, held in Rio de Janeiro, Brazil, from 20 to 22 June 2012.

36. The representatives of Chile, Egypt, Italy, Indonesia, Japan, Mexico, Pakistan, the Republic of Korea, the Russian Federation, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by other member States, the representative of Morocco on behalf of the Group of African States and the representative of Nicaragua on behalf of the Group of Latin American and Caribbean States.

37. The Committee heard the following presentations under the item:

(a) "Space Security Index 2014", by the representative of Canada;

(b) "Asia-Pacific Regional Space Agency Forum (APRSAF) activity in the Asia-Pacific region for the next decade", by the representative of Japan;

(c) "50 years of European cooperation in space", by the observer for ESA.

38. Some delegations emphasized the following principles: equal and non-discriminatory access to outer space and equal conditions for all States, irrespective of their level of scientific, technical and economic development; non-appropriation of outer space, including the Moon and other celestial bodies, by claim of sovereignty, use, occupation or any other means; non-militarization of outer space and its exploitation strictly for the improvement of living conditions and peace on the planet; and regional cooperation to promote space activities, as established by the General Assembly and other international forums.

39. Some delegations expressed the view that in order to further the objective of promoting peaceful uses of outer space, it was important to preserve the principle embodied in article IV of the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies.

40. The view was expressed that, with regard to the need to maintain outer space for peaceful purposes, the Committee should play a key role by disseminating information on and promoting the peaceful uses of outer space and by continuing to contribute to consolidating and perfecting the ethical principles and legal instruments that could guarantee the non-discriminatory use of outer space exclusively for peaceful purposes.

41. Some delegations expressed the view that it was necessary to ensure greater security in outer space through the development and implementation of transparency and confidence-building measures.

42. The view was expressed that there was a self-induced lack of confidence in the potential of the Committee's work under this priority agenda item and that the Committee's work should go beyond mere reaffirmations of allegiance to peace in outer space.

43. The view was expressed that the Committee should begin to consider the legal basis for, and the modalities of, in a hypothetical case, the exercise of the right to self-defence in accordance with the Charter of the United Nations, as applied to outer space; that articles 2 and 51 of the United Nations Charter should be thoroughly analysed and interpreted in relation to outer space activities, with its complex system of maintenance of security and where potential conflicts of interest could lead to the emergence of extreme situations; and that this work, logically associated with a responsible conduct of space activities, would help States to reach an understanding and partnership in establishing and sustaining a highly adaptive regulatory system that would adequately alleviate or avoid situations and problems that might cause conflicts in outer space.

44. The view was expressed that adequate arrangements on the safety of space operations, if reached by the Scientific and Technical Subcommittee under the concept of and guidelines for ensuring the long-term sustainability of outer space activities, should have a role to play in establishing conditions under which pragmatic regulations would prevail. In this connection, the view was also expressed that consideration of all aspects of the right of self-defence in outer space would be instrumental in enabling States to reach a higher level of perception and comprehension of current realities of security in outer space, as well as of the genesis and nature of, and perspectives on, future developments in this domain.

45. The view was expressed that in dealing with matters under this agenda item, the Committee should take a gradual approach and begin with the consideration of less controversial technical issues, rather than embarking on long-lasting and overly political issues such as disarmament in outer space.

46. Some delegations expressed the view that the existing legal regime with respect to outer space was not adequate to prevent the placement of weapons in outer space or to address issues concerning the space environment, and that it was important to further develop international space law in order to maintain outer space for peaceful purposes. Those delegations were of the view that in order to ensure that outer space was used peacefully and to prevent its militarization, the preparation of binding international legal instruments was necessary.

47. The view was expressed that the development of a legally binding treaty on the prevention of an arms race in outer space should be conducted without prejudice to ongoing discussions on an international code of conduct for outer space activities.

48. The view was expressed that in order to maintain the peaceful nature of space activities and prevent the placement of weapons in outer space, it was essential for the Committee to enhance its cooperation and coordination with other bodies and mechanisms of the United Nations system, such as the First Committee of the General Assembly and the Conference on Disarmament.

49. The view was expressed that the Committee had been created exclusively to promote international cooperation with respect to the peaceful uses of outer space and that disarmament issues were more appropriately dealt with in other forums, such as the First Committee of the General Assembly and the Conference on Disarmament. The delegation expressing that view was also of the view that no actions by the Committee were needed regarding the weaponization of outer space and that there was no scarcity of appropriate multilateral mechanisms where disarmament could be discussed.

50. The Committee noted with satisfaction the adoption by the General Assembly of its resolution 68/50 of 5 December 2013, as well as the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189).

51. The Committee noted that the General Assembly, in its resolution 68/50, had encouraged relevant entities and organizations of the United Nations system to coordinate, as appropriate, on matters related to the recommendations contained in the report of the Group of Governmental Experts.

52. The Committee noted that China and the Russian Federation had submitted to the Conference on Disarmament, on 10 June 2014, an updated draft treaty on the prevention of the placement of weapons in outer space and of the threat or use of force against outer space objects.

53. The view was expressed that the work of the Conference on Disarmament should receive the full support of the Committee.

54. Some delegations informed the Committee about the continuous work in the development of an international code of conduct for outer space activities, which those delegations stated was carried out in an open, transparent and inclusive manner, thus offering all interested member States the opportunity to participate in the process and share their views. Those delegations also informed the Committee that the third open-ended consultations had been held in Luxembourg on 27 and 28 May 2014.

55. Some delegations expressed the view that consultations on an international code of conduct for outer space activities should be conducted within the framework of the United Nations.

56. Some delegations expressed the view that new initiatives in the field of international space law and policy should not undermine the fundamental principles underlying the existing legal regime, but should enrich and further develop those principles.

57. Some delegations expressed the view that the best way to maintain outer space for peaceful purposes was to strengthen international cooperation, in particular with respect to the safety and security of space assets.

58. Some delegations expressed the view that the Committee played a notable role in advancing space cooperation and provided a unique forum for the exchange of information among States, and that there were tangible opportunities to enhance international cooperation, in keeping with the Committee's mandate.

59. The Committee agreed that, through its work in the scientific, technical and legal fields, as well as through the promotion of international dialogue and

exchange of information on various topics relating to the exploration and use of outer space, it had a fundamental role to play in enhancing transparency and confidence-building among States, as well as in ensuring that outer space was maintained for peaceful purposes.

60. The Committee emphasized that international, regional and interregional cooperation and coordination in the field of space activities were essential to strengthen the peaceful uses of outer space and to assist States in the development of their space capabilities.

61. The Committee noted with satisfaction continuous developments in a number of international cooperative endeavours that were being pursued at the international, regional and interregional levels by various actors, such as States and international intergovernmental and non-governmental organizations.

62. The Committee noted with appreciation that the fifth African Leadership Conference on Space Science and Technology for Sustainable Development had been hosted by the Government of Ghana in Accra from 3 to 5 December 2013, and the various outcomes of the Conference. The Committee also noted with appreciation the support and contribution of the Office for Outer Space Affairs to the organization of that Conference.

63. The Committee recalled the Pachuca Declaration, adopted by the Sixth Space Conference of the Americas, held in Pachuca, Mexico, from 15 to 19 November 2010, which had developed a regional space policy for the near future and also, inter alia, created an advisory group of space experts. The Committee noted that the pro tempore secretariat of the Sixth Space Conference of the Americas was continuing the implementation of the Pachuca Declaration.

64. The Committee noted with satisfaction that the twentieth session of the Asia-Pacific Regional Space Agency Forum (APRSAF) had been held in Hanoi from 3 to 6 December 2013 under the theme "Values from space: 20 years of Asia-Pacific experiences". The Committee further noted that the twenty-first session of APRSAF would be held in Tokyo from 2 to 5 December 2014.

65. The Committee noted with satisfaction that the seventh meeting of the Council of APSCO had been held in Beijing on 5 July 2013, at which it had approved a number of new projects, reviewed the progress being made on those approved earlier and agreed to hold its next meeting in 2014.

66. The Committee noted the important role that bilateral and multilateral agreements played in promoting common space exploration objectives and cooperative and complementary space exploration missions.

67. The Committee recommended that at its fifty-eighth session, in 2015, consideration of the item on ways and means of maintaining outer space for peaceful purposes should be continued, on a priority basis.

B. Report of the Scientific and Technical Subcommittee on its fifty-first session

68. The Committee took note with appreciation of the report of the Scientific and Technical Subcommittee on its fifty-first session (A/AC.105/1065), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 68/75.

69. The Committee expressed its appreciation to Előd Both (Hungary) for his able leadership during the fifty-first session of the Subcommittee.

70. The representatives of Austria, Brazil, Canada, China, the Czech Republic, Germany, Italy, Japan, Pakistan, the Republic of Korea, the Russian Federation, the United States and Venezuela (Bolivarian Republic of) made statements under the item. A statement was also made by the representative of Chile on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by other member States.

71. The Committee heard the following presentations:

(a) "OPS-SAT: an advanced nanosatellite mission of the European Space Agency", by the representative of Austria;

(b) "China lunar exploration programme", by the representative of China;

(c) "The contributions of Chilean satellite Fasat-C to the development of Chile", by the representative of Chile;

(d) "DLR contributions to global challenges, focusing on humanitarian applications", by the representative of Germany;

(e) "The Science Data Centre of the Italian Space Agency (ASI) as a modern multi-discipline data centre supporting long-experienced as well as emerging countries in the field of space science", by the representative of Italy;

(f) "New era of global monitoring by ALOS-2: Advanced Land Observing Satellite-2 DAICHI-2", by the representative of Japan;

(g) "Preparedness plan for space hazards in the Republic of Korea", by the representative of the Republic of Korea.

1. United Nations Programme on Space Applications

(a) Activities of the United Nations Programme on Space Applications

72. The Committee took note of the discussion of the Subcommittee under the item on the United Nations Programme on Space Applications, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 33-56).

73. The Committee noted that the priority areas of the Programme were environmental monitoring, natural resource management, satellite communications for tele-education and telemedicine applications, disaster risk reduction, the use of global navigation satellite systems, the Basic Space Science Initiative, space law, climate change, the Basic Space Technology Initiative and the Human Space Technology Initiative.

74. The Committee took note of the activities of the Programme carried out in 2013, as presented in the report of the Subcommittee (A/AC.105/1065, paras. 40-45) and in the report of the Expert on Space Applications (A/AC.105/1062, annex I).

75. The Committee expressed its appreciation to the Office for Outer Space Affairs for the manner in which the activities of the Programme had been implemented. The Committee also expressed its appreciation to the Governments and intergovernmental and non-governmental organizations that had sponsored the activities.

76. The Committee noted with satisfaction that further progress was being made in the implementation of the activities of the Programme for 2014, as described in the report of the Subcommittee (A/AC.105/1065, para. 46).

77. The Committee also noted with satisfaction that the Office for Outer Space Affairs was helping developing countries and countries with economies in transition to participate in and benefit from activities being carried out under the Programme.

78. The Committee noted with concern the limited financial resources available to implement the Programme and appealed to States and organizations to continue supporting the Programme through voluntary contributions.

79. The Committee took note of the conference room papers "Basic Space Technology Initiative: activities in 2013-2014 and plans for 2015 and beyond" (A/AC.105/2014/CRP.6) and "Human Space Technology Initiative: activities in 2011-2013 and plans for 2014 and beyond" (A/AC.105/2013/CRP.16).

(i) Conferences, training courses and workshops of the United Nations Programme on Space Applications

80. The Committee endorsed the workshops, training courses, symposiums and expert meetings planned for the remainder of 2014 and expressed its appreciation to Austria, Canada, China, Ecuador, Mexico and Morocco, as well as the Abdus Salam International Centre for Theoretical Physics in Trieste, Italy, APSCO, IAF and the International Committee on Global Navigation Satellite Systems (ICG), for co-sponsoring and hosting those activities (see A/AC.105/1062, annex II). The Committee noted that the United Nations/Russian Federation Workshop on the Applications of Global Navigation Satellite Systems had been rescheduled from May 2014 to May 2015.

81. The Committee endorsed the programme of workshops, training courses, symposiums and expert meetings relating to environmental monitoring, natural resource management, global health, global navigation satellite systems (GNSS), basic space science, basic space technology, climate change, human space technology and the socioeconomic benefits of space activities to be held in 2015 for the benefit of developing countries.

(ii) Long-term fellowships for in-depth training

82. The Committee expressed its appreciation to the Government of Italy, which, through the Politecnico di Torino and the Istituto Superiore Mario Boella and with the collaboration of the Istituto Elettrotecnico Nazionale Galileo Ferraris, had

continued to provide fellowships for postgraduate studies on GNSS and related applications.

83. The Committee expressed its appreciation to the Government of Japan, which through the Kyushu Institute of Technology had continued to provide four doctoral and two master's degree fellowships under the United Nations/Japan Long-term Fellowship Programme on Nanosatellite Technologies.

84. The Committee expressed its appreciation to the Government of Germany, which, in collaboration with the Centre of Applied Space Technology and Microgravity and the German Aerospace Center (DLR), had introduced a new fellowship programme that provided a research team with the opportunity to conduct its own microgravity experiments at the Bremen Drop Tower in Germany.

85. The Committee noted with appreciation the successful launch of the Zero-Gravity Instrument Project as part of the Human Space Technology Initiative of the Programme. The Project contributed to capacity-building in education and research on microgravity, in particular in developing countries.

86. The Committee noted that it was important to increase opportunities for in-depth education in all areas of space science, technology, applications and law through long-term fellowships and urged Member States to make such opportunities available at their relevant institutions.

(iii) Technical advisory services

87. The Committee noted with appreciation the technical advisory services provided under the United Nations Programme on Space Applications in support of activities and projects promoting regional cooperation in space applications, as referred to in the report of the Expert on Space Applications (A/AC.105/1062, paras. 38-46).

(iv) Regional centres for space science and technology education, affiliated to the United Nations

88. The Committee noted with satisfaction that the United Nations Programme on Space Applications continued to emphasize, promote and foster cooperation with Member States at the regional and global levels to support the regional centres for space science and technology education, affiliated to the United Nations. The highlights of the activities of the regional centres supported under the Programme in 2012-2014 were presented in the report of the Expert on Space Applications (A/AC.105/1062, annex III).

89. The Committee noted that a meeting of the directors of the regional centres for space science and technology education, affiliated to the United Nations, had been held on the margins of the current session of the Committee on 13 June 2014. The Committee noted that at that meeting the directors had agreed to strengthen communication among the regional centres and between the regional centres and the Programme on Space Applications. The Committee also noted that the regional centres welcomed the newly developed education curricula on GNSS and space law and showed a strong interest in contributing to the development of a new curriculum related to basic space technology.

90. The Committee noted with appreciation that the host countries of the regional centres for space science and technology education, affiliated to the United Nations, in line with their obligations as host countries, were continuing to provide the centres with financial and in-kind support.

91. The Committee noted with concern the limited financial resources available to some of the regional centres and appealed to Member States and organizations in the regions where those centres were located to support the activities of the centres through financial and in-kind contributions.

92. The Committee welcomed the progress on the establishment of a new regional centre for space science and technology education in Asia and the Pacific, located at Beihang University in Beijing, following the positive conclusion of an evaluation mission to Beihang University in September 2013, facilitated by the Office for Outer Space Affairs.

(b) International Satellite System for Search and Rescue

93. The Committee noted with satisfaction that the International Satellite System for Search and Rescue (COSPAS-SARSAT) currently had 41 member States and two participating organizations and that there was additional interest in being associated with the programme. The Committee noted with appreciation that the worldwide coverage for emergency beacons had been made possible by the space segment, which consisted of six polar-orbiting and six geostationary satellites provided by Canada, France, India, the Russian Federation and the United States, along with the European Organization for the Exploitation of Meteorological Satellites (EUMETSAT), as well as by the ground-segment contributions made by 26 other countries. The Committee also noted that, since becoming operational in 1982, COSPAS-SARSAT had provided assistance in rescuing at least 37,000 persons in 10,400 search and rescue events and that in 2013 alert data from the system had helped to save 1,900 lives in 741 search and rescue events worldwide.

94. The Committee also noted that the use of satellites in medium Earth orbit continued to be explored, with a view to improving international satellite-aided search and rescue operations. The Committee welcomed the testing of global positioning system (GPS) satellites to improve the capabilities of beacons to take advantage of medium Earth orbit satellites.

95. The Committee further noted that the United States had initiated, together with other States, a development and evaluation phase for the use of Medium Earth Orbit Search and Rescue (MEOSAR) in January 2013, using GPS satellites, as well as similar systems operated by cooperating States. The development and evaluation phase would help to characterize the operational readiness of the system and, when predefined criteria were met, would allow the new MEOSAR system to become operational.

2. Space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda

96. The Committee took note of the discussion of the Subcommittee under the item on space technology for socioeconomic development in the context of the

United Nations Conference on Sustainable Development and the post-2015 development agenda, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 57-67).

97. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee and its Working Group of the Whole (A/AC.105/1065, para. 67, and annex I, paras. 3-6).

98. The Committee recalled that the General Assembly, in its resolution 68/75, had reiterated that the benefits of space technology and its applications should continue to be brought to the attention, in particular, of the major United Nations conferences and summits for economic, social and cultural development and related fields and that the use of space technology should be promoted in efforts towards achieving the objectives of those conferences and summits, including implementing the Millennium Declaration and contributing to the post-2015 development agenda process.

99. Recognizing the effective role of space science and technology and their applications for tele-health and tele-epidemiology, the Committee endorsed the recommendation of the Scientific and Technical Subcommittee at its fifty-first session to establish an expert focus group on space and global health to consider issues related to the use of space technology for public health (A/AC.105/1065, annex I, para. 6). The Committee agreed that the group should present, under the leadership of Canada, its method and programme of work, including a concrete timeline, to the Working Group of the Whole of the Subcommittee for its consideration at the next session of the Subcommittee, in 2015. The Committee noted that the expert group would be led by Dr. Pascal Michel of the Public Health Agency of Canada, and that no Secretariat services would be required for the focus expert group.

100. The Committee noted in this regard that the United Nations/IAF Workshop on Space Technology for Socioeconomic Benefits to be held in Toronto, Canada, from 26 to 28 September 2014 would focus on global health and maritime applications.

3. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment

101. The Committee took note of the discussion of the Subcommittee under the item on matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 68-80).

102. In the course of the discussion, delegations reviewed national and cooperative programmes on remote sensing. Examples were given of national, bilateral, regional and international programmes to further socioeconomic and sustainable development, notably in the following areas: agriculture and fishery; monitoring climate change; disaster management; hydrology and drought monitoring; managing ecosystems and natural resources; monitoring air and water quality; mapping biodiversity resources, coastal zones, land use, wasteland and wetlands; ice-cover monitoring; oceanography; rural development and urban planning; and safety and public health.

103. The Committee noted the important role played in promoting regional cooperation in the use of remote sensing technology by regional organizations and initiatives, such as APRSAF and its Sentinel Asia project and Space Applications for Environment programme.

104. The Committee took note of the number of continued launches of Earth observation satellites and the innovative research conducted using such satellites, data that could be used to develop advanced, globally integrated Earth-system models.

105. The Committee noted with satisfaction that a growing number of developing countries had been actively developing and deploying their own remote sensing satellite systems and utilizing space-based data to advance socioeconomic development, and it stressed the need to continue enhancing the capacities of developing countries with regard to the use of remote sensing technology.

4. Space debris

106. The Committee took note of the discussion of the Subcommittee under the item on space debris, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 81-104).

107. The Committee endorsed the decisions and recommendations of the Subcommittee on the item (A/AC.105/1065, paras. 86 and 101-104).

108. The Committee noted with appreciation that some States were already implementing space debris mitigation measures, consistent with the Space Debris Mitigation Guidelines of the Committee and/or the Inter-Agency Space Debris Coordination Committee (IADC) Space Debris Mitigation Guidelines, and that other States had developed their own space debris mitigation standards based on those guidelines. The Committee also noted that other States were using the IADC Guidelines and the European Code of Conduct for Space Debris Mitigation as reference points in their regulatory frameworks for national space activities. The Committee further noted that other States had cooperated, in the framework of the ESA space situational awareness programme, to address the issue of space debris.

109. The Committee urged those countries that had not yet done so to consider voluntary implementation of the Space Debris Mitigation Guidelines of the Committee and/or the IADC Space Debris Mitigation Guidelines.

110. The Committee noted that the compendium of space debris mitigation standards adopted by States and international organizations, developed by Canada, the Czech Republic and Germany, would contribute to improving the knowledge on space debris mitigation standards and regulatory frameworks in that field.

111. The Committee noted the establishment of a space surveillance and tracking support framework by the European Union to support the networking and operations of space surveillance and tracking assets.

112. The Committee noted with satisfaction the dedicated research efforts among States to mitigate the effects of space debris.

113. Some delegations expressed the view that national and international efforts should be intensified to reduce the creation and proliferation of space debris.

114. Some delegations expressed the view that the issue of space debris should be addressed in a manner that would not jeopardize the development of the space capabilities of developing countries.

115. Some delegations called on the Subcommittee to continue its thorough consideration of the issue of space debris mitigation, in particular by paying greater attention to the problem of debris coming from platforms with nuclear power sources in outer space and to collisions of space objects with space debris and their derivatives, as well as to ways of improving the technology and the collaborative networks for monitoring space debris.

116. Some delegations expressed the view that the Scientific and Technical Subcommittee and the Legal Subcommittee should cooperate in developing legally binding rules relating to space debris.

117. Some delegations expressed the view that the mitigation of space debris and the limitation of its creation should be among the priorities of the Committee's work.

118. Some delegations expressed the view that it would be beneficial for member States to exchange information on measures to reduce the creation and proliferation of space debris and to mitigate its effects; on the collection, sharing and dissemination of data on space objects; and on re-entry notifications.

119. Some delegations expressed the view that the following information- and communication-related issues needed to be addressed for space debris mitigation: the establishment of a common international practice of information exchange and a single space debris monitoring centre; the development of a universally recognized international database of all known space objects and a universally accepted standard for collision risk calculation; and greater cooperation between launching and space debris monitoring entities during the launching phase.

120. Some delegations expressed the view that States, especially those that were largely responsible for the situation with regard to space debris, and those that had the ability to take action for space debris mitigation, should disseminate information on actions taken to reduce the generation of space debris.

121. The view was expressed that States, especially those that were largely responsible for the situation with regard to space debris, should assist countries with emerging space capabilities in the implementation of space debris mitigation guidelines or standards through the provision of conjunction assessment risk analysis and space situational awareness systems.

122. The view was expressed that States, especially those that were largely responsible for the situation with regard to space debris, should assist developing countries by providing scientific and technological support, including the transfer of relevant technology without undue costs.

123. The view was expressed that the Space Debris Mitigation Guidelines of the Committee should be perfected in order to eliminate any ambiguity in their content that might allow countries to continue practices leading to the creation of space debris.

124. The view was expressed that States that have space objects should follow up on and continuously monitor them.

5. Space-system-based disaster management support

125. The Committee took note of the discussion of the Subcommittee under the item on space-system-based disaster management support, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 105-125).

126. The Committee had before it conference room papers entitled "Report of the fifth meeting of the network of regional support Offices of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response, 13 and 14 February 2014" (A/AC.105/2014/CRP.10) and "Workplan of the network of regional support offices of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response for 2014 and 2015" (A/AC.105/2014/CRP.11). The Committee was informed about the increasing coordination among regional support offices and of their contributions to the programme of activities of the United Nations Platform for Space-based Information for Disaster Management and Emergency Response (UN-SPIDER).

127. The Committee heard a statement by the UN-SPIDER programme coordinator from the Office for Outer Space Affairs and noted with satisfaction the voluntary contributions made by Member States, including the renewed commitment of cash contributions for 2015 from China and Germany, and encouraged Member States to provide, on a voluntary basis, all the support necessary, including financial support, to UN-SPIDER. The Committee noted with appreciation that the programme had also benefited from the services of associate experts and experts provided by Austria, China and Germany.

128. The Committee noted with satisfaction the ongoing activities of Member States that were contributing to increasing the availability and use of space-based solutions in support of disaster management, and also supporting the UN-SPIDER programme, including the following: the Sentinel Asia project and its coordination of emergency observation requests through the Asian Disaster Reduction Centre; the European Earth Observation Programme (Copernicus) emergency mapping service; and the Charter on Cooperation to Achieve the Coordinated Use of Space Facilities in the Event of Natural or Technological Disasters (also called the International Charter on Space and Major Disasters).

129. The Committee noted that the information and services being delivered under the UN-SPIDER programme were making a valuable contribution to mitigating the consequences of natural disasters and called on member States to continue supporting the programme.

130. The Committee noted with satisfaction a high-level commitment to promote space-based data and products for sustainable development, as expressed in a statement by President Danilo Medina of the Dominican Republic at the sixth Summit of the Association of Caribbean States, held in Mexico in April 2014, which was made available to the Committee through a video provided by the Office for Outer Space Affairs.

6. Recent developments in global navigation satellite systems

131. The Committee took note of the discussion of the Subcommittee under the item on recent developments in GNSS, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 126-148).

132. The Committee noted with appreciation that ICG, established in 2005 under the umbrella of the United Nations, continued to make significant progress in encouraging compatibility and interoperability among global and regional space-based positioning, navigation and timing systems and promoting the greater use of GNSS capabilities to support sustainable development, particularly taking into account the interests of developing nations.

133. The Committee expressed its appreciation to the Office for Outer Space Affairs for its continued support as executive secretariat for ICG and its Providers' Forum, and for the organization of workshops and training courses focusing on capacity-building in the use of GNSS-related technologies in various fields of science and industry, including on the subject of space weather effects in the ionosphere and their impact on positioning.

134. The Committee noted with appreciation that the eighth meeting of ICG and the eleventh meeting of its Providers' Forum had been held in Dubai, United Arab Emirates, from 9 to 14 November 2013, that the twelfth meeting of the Providers' Forum had been held in Vienna on 10 June 2014 and that the ninth meeting of ICG would be held in Prague from 10 to 14 November 2014. The Committee also noted the expression of interest by the United States in hosting the tenth meeting of ICG, in 2015.

135. The Committee noted that regular meetings among China, India, Japan, the Russian Federation, the United States and the European Union had been held to discuss ways in which interoperability among GNSS providers could be enhanced and services for the global user community could be improved.

136. The Committee noted the continued activities of the Russian Federation related to cooperation in the area of GNSS, including cooperation and coordination in achieving interoperability among GNSS providers for the benefit of all humankind.

137. The Committee also noted that an exhibit on GLONASS was on display at the space exhibit of the Office for Outer Space Affairs during the current session of the Committee, and that it was planned to remain for an extended period of time.

138. The Committee noted that the Galileo programme, Europe's initiative for a state-of-the-art GNSS, was intended to provide a highly accurate, guaranteed global positioning service under civilian control.

139. The Committee also noted that the European Union had adopted a new Regulation on the European GNSS programmes for the period 2014-2020. It was further noted that the satellite Astra 5B, which carried an L-band payload for the European Geostationary Navigation Overlay Service (EGNOS), had been successfully launched and that the launch of four satellites was planned for 2014.

140. The Committee noted that the Galileo satellite navigation system would allow improved services such as precise in-car navigation, effective road transport management, search and rescue services, secure banking transactions and reliable electricity supply. It was also noted that the GNSS Service Centre had been inaugurated in Madrid on 14 May 2013, which would allow users to be informed regularly of the status of the Galileo constellation.

141. The Committee noted that the BeiDou Navigation Satellite System had been widely used in transportation, tourism, education, training, and system monitoring and evaluation, and that the new-generation navigation satellites were planned to be launched in 2015.

142. The Committee noted that the Indian Regional Navigation Satellite System (IRNSS) constellation was an independent system being developed to provide information on positioning over the Indian region and that IRNSS-1A, the first satellite of the constellation, and IRNSS-1B, the second satellite, had been precisely placed into the intended orbit. It was also noted that ground stations required for the generation and transmission of navigation parameters had already been established in 15 locations across the country. The Committee further noted that the full constellation of seven satellites was planned to be completed by 2015-2016.

7. Space weather

143. The Committee took note of the discussion of the Subcommittee under the item on space weather, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 149-157).

144. The Committee noted that the agenda item on space weather allowed member States of the Committee and international organizations having permanent observer status with the Committee to exchange views on national, regional and international activities related to space weather science and research with a view to promoting greater international cooperation in that area.

145. The Committee noted with satisfaction that the expert meeting on improving space weather forecasting in the next decade, held on the margins of the fifty-first session of the Scientific and Technical Subcommittee, had brought together 42 international scientists currently working in space weather research from 21 countries to discuss the paths for improvement of space weather forecasting during the next decade.

146. The Committee endorsed the recommendation of the Scientific and Technical Subcommittee at its fifty-first session to set up an expert group with a rapporteur under the agenda item of the Scientific and Technical Subcommittee on space weather, drawing on the best practices of the work of expert group C on space weather of the Working Group on the Long-term Sustainability of Outer Space Activities, with a programme of work to be considered at the fifty-second session, in 2015 (A/AC.105/1065, annex I, para. 10). The Committee noted that under the leadership of Canada, the programme of work of the newly established expert group would be presented to the Subcommittee at its next session, in 2015. It was noted that the objective of that expert group would be to take stock of relevant technology, information and observation systems around the world and to propose recommendations, including areas for future study. The Committee further noted that no Secretariat services would be required for the expert group.

147. The Committee noted that the International Centre for Space Weather Science and Education (ICSWSE), based at Kyushu University of Japan, continued its support for space weather research, including the operation of a Magnetic Data Acquisition System (MAGDAS) global network of magnetometers, and space weather education, including the implementation of MAGDAS schools for

capacity-building. It was also noted that the International Space Weather Initiative newsletter continued to be published by ICSWSE.

148. The Committee welcomed the upcoming United Nations/Japan workshop on science and data products from International Space Weather Initiative instruments, scheduled to take place in March 2015, to be hosted by ICSWSE on behalf of the Government of Japan.

149. The Committee noted that the National Institute of Information and Communications Technology (NICT) of Japan, serving as the regional warning centre of the International Space Environment Service (ISES), continued to disseminate space weather information. It was also noted that NICT had established a ground-based observation network, the South-East Asia Low-Latitude Ionospheric Network (SEALION), for monitoring and forecasting equatorial ionospheric disturbances.

150. The Committee noted that collaborative activities of the Asia-Oceania Space Weather Alliance (AOSWA), in Tokyo, had been conducted in the Asia-Oceania region since 2011, and that the Alliance consisted of 26 institutes from 13 countries.

151. The Committee noted the establishment in China of a space environment monitoring network and space weather forecasting system to provide early warning for significant disastrous space weather events and services for the safety of space assets.

8. Near-Earth objects

152. The Committee took note of the discussion of the Subcommittee under the item on near-Earth objects, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 158-173).

153. The Committee noted that in its resolution 68/75, the General Assembly had welcomed with satisfaction the recommendations for an international response to the near-Earth object (NEO) impact threat as contained in document A/AC.105/1038, annex III, paragraphs 11-14.

154. The Committee recalled that at the fiftieth session of the Subcommittee, its Working Group on Near-Earth Objects had made recommendations to the effect that:

(a) An international asteroid warning network (IAWN), open to contributions by a broad spectrum of organizations, should be established by linking together the institutions that were already performing, to the extent possible, the necessary functions;

(b) A space mission planning advisory group (SMPAG) should be established by States Members of the United Nations that have space agencies.

155. The Committee noted that the Action Team on Near-Earth Objects should assist in the establishment of IAWN and SMPAG. Once established, IAWN and SMPAG should report annually to the Subcommittee on their work.

156. The Committee noted that the Action Team had met on 11 June 2014 on the margins of the fifty-seventh session of the Committee to plan future work on the

establishment of IAWN and to make preparations for the second meeting of SMPAG, to be held on 12 and 13 June 2014.

157. The Committee was informed that the first meeting of the ad hoc steering committee of IAWN had been hosted by the Minor Planet Center at Cambridge, United States, on 13 and 14 January 2014. At that meeting, the core membership of the ad hoc steering committee had been established (A/AC.105/1065, para. 171). Members of the ad hoc steering committee also recognized that there was a need to encourage additional participation in IAWN through the recruitment of other organizations that could contribute to the efforts of the network.

158. The Committee was also informed that a draft letter of intent to participate in IAWN had been distributed to members of the Action Team during its meeting on 11 June 2014, with a request for institutions to communicate to the ad hoc steering committee of IAWN their intention to participate in the work of the network.

159. The Committee was further informed that the Action Team, in collaboration with the National Aeronautics and Space Administration (NASA) and SWF, would organize a workshop on communication strategies regarding NEO impact hazards on 9 and 10 September 2014 at Broomfield, Colorado, United States.

160. The Committee was informed that ESA had hosted the first meeting of SMPAG at its European Space Operations Centre, Darmstadt, Germany, on 6 and 7 February 2014 (A/AC.105/1065, para. 172). At that meeting it had been noted that the primary purpose of SMPAG was to prepare for an international response to an NEO threat. The group should include representatives of spacefaring nations and lay out the framework, timelines and options for initiating and executing space mission response activities.

161. The Committee was also informed that at the second meeting of SMPAG, held on 12 and 13 June 2014, on the margins of its fifty-seventh session, the following had been achieved:

(a) The meeting had finalized the draft terms of reference for SMPAG and agreed on a version considered final, pending confirmation by legal experts of the member organizations;

(b) Presentations on current activities related to planetary defence had been made by the Centre national d'études spatiales (CNES) of France, DLR, ESA, the Japan Aerospace Exploration Agency (JAXA), the UK Space Agency and NASA;

(c) Letters confirming participation in SMPAG and nominating delegation members and heads of delegation as members of the steering committee had been received by the interim Chair of SMPAG. Additional letters of confirmation were expected;

(d) ESA had been formally and unanimously elected to the Chair of SMPAG for the next two years;

(e) The need for transparency and open communication had been emphasized. Consequently, it was decided to accept observers with expertise in fields relevant to the topic of planetary defence at the meetings of SMPAG;

(f) A draft task list had been identified, from which a workplan document would be produced. It had been agreed to assign task leaders to coordinate the task

activities and the production of a report. Some members had already volunteered to be task leaders;

(g) It had been agreed that the next SMPAG steering committee meeting would take place on the margins of the fifty-second session of the Scientific and Technical Subcommittee and that the next full SMPAG meeting would take place in Frascati, Italy, on 9 and 10 April 2015 just before the 2015 Planetary Defence Conference.

9. Use of nuclear power sources in outer space

162. The Committee took note of the discussion of the Subcommittee under the item on the use of nuclear power sources in outer space, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 174-187).

163. The Committee endorsed the decisions and recommendations of the Subcommittee and the Working Group on the Use of Nuclear Power Sources in Outer Space, reconvened under the chairmanship of Sam A. Harbison (United Kingdom) (A/AC.105/1065, para. 187, and annex II, para. 9).

164. The Committee noted the work of the Working Group on the Use of Nuclear Power Sources in Outer Space under its extended multi-year workplan.

165. The view was expressed that the Working Group on Nuclear Power Sources should work in conjunction with the Working Group on the Long-term Sustainability of Outer Space Activities of the Subcommittee.

166. The view was expressed that encouraging national implementation of the Safety Framework for Nuclear Power Source Applications should remain a high priority of the Subcommittee.

167. Some delegations expressed the view that in order to ensure the safe use of nuclear power sources, it was important that space actors with proven capabilities in this field should make available information and know-how on measures taken to ensure the safety of space objects using nuclear power sources.

168. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in the regulatory process associated with the use of nuclear power sources in outer space and that the matter concerned all humanity. Those delegations were of the view that Governments bore international responsibility for national activities involving the use of nuclear power sources in outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial, not detrimental, to humanity.

169. Some delegations expressed the view that more consideration should be given to the use of nuclear power sources in terrestrial orbits in order to address the problem of potential collisions of nuclear power source objects in orbit, as well as to their accidental re-entry into the Earth's atmosphere. Those delegations were of the view that more attention should be given to that matter through adequate strategies, long-term planning, regulations and the promotion of binding standards, as well as the Safety Framework for Nuclear Power Source Applications in Outer Space.

10. Long-term sustainability of outer space activities

170. The Committee took note of the discussion of the Subcommittee under the item on the long-term sustainability of outer space activities, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 188-222).

171. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee and the Working Group on the Long-term Sustainability of Outer Space Activities, reconvened under the chairmanship of Peter Martinez (South Africa) (A/AC.105/1065, para. 222, and annex III, paras. 12, 17 and 20).

172. The Committee had before it General Assembly resolution A/68/50, entitled "Transparency and confidence-building measures in outer space activities"; the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189); a working paper submitted by the Russian Federation entitled "Long-term sustainability of outer space activities (basic elements of the concept of establishing a unified centre for information on near-Earth space monitoring under the auspices of the United Nations and the most topical aspects of the subject matter" (A/AC.105/L.290); a proposal for a draft report and a preliminary set of draft guidelines of the Working Group (A/AC.105/C.1/L.339), which had previously been made available to delegations at the fifty-first session of the Scientific and Technical Subcommittee; a proposal by the Chair of the Working Group for the consolidation of the set of draft guidelines on the long-term sustainability of outer space activities (A/AC.105/2014/CRP.5); suggested amendments to the proposal for the report and draft set of guidelines contained in A/AC.105/C.1/L.339, submitted by Pakistan (A/AC.105/2014/CRP.12); the working report of expert group B (A/AC.105/2014/CRP.14); proposed amendments to the proposal for the consolidation of the set of draft guidelines, submitted by the Bolivarian Republic of Venezuela (A/AC.105/2014/CRP.16); and a commentary on and proposed amendments to the proposal for the consolidation of the set of draft guidelines, submitted by the Netherlands (A/AC.105/2014/CRP.22).

173. The Committee welcomed the progress made under the agenda item within the Working Group, and recalled that expert groups A, C and D had finalized their working reports at the fifty-first session of the Scientific and Technical Subcommittee.

174. The Committee also recalled that expert group B had met on the margins of the current session and noted with appreciation that its working report had now been finalized.

175. The Committee thanked the co-chairs of the four expert groups and all the experts who had participated in the meeting for their dedicated work.

176. The Committee noted that in accordance with its agreement at the fifty-sixth session, the Chair of the Working Group had informed the Legal Subcommittee at its fifty-third session about the progress achieved by the Working Group in the period leading up to and during the fifty-first session of the Subcommittee.

177. The Committee noted with appreciation the proposal by the Chair of the Working Group for the consolidation of the set of draft guidelines, prepared in accordance with the agreement of the Scientific and Technical Subcommittee.

178. The Committee noted that the Working Group had met during the current session of the Committee, with interpretation services.

179. The Committee also noted that informal consultations had been held by the Chair with interested delegations during the current session, and that during those consultations, delegations had put forward proposals for amendments to the proposal by the Chair of the Working Group for the consolidation of the set of draft guidelines, and that some delegations had also put forward proposals for new guidelines. All proposals had then been made available to the Working Group in a non-paper by the Chair, as a working aid to assist delegations in considering the further development of the set of draft guidelines.

180. The Committee noted that in accordance with the agreement reached by the Working Group at the fifty-first session of the Scientific and Technical Subcommittee, the Working Group had discussed the findings in the report of the Group of Governmental Experts on Transparency and Confidence-building Measures in Outer Space Activities (A/68/189), with a view to identifying interlinkages in the recommendations contained in that report and in the work under way in the Working Group. The Committee further noted that such interlinkages included information exchanges and notifications on outer space activities, registration of space objects, information exchanges relating to forecasting natural hazards in outer space and international cooperation for capacity-building, and that some aspects of such topics were addressed in the current set of draft guidelines of the Working Group.

181. Some delegations expressed the view that the proposal by the Chair of the Working Group for the consolidation of the set of draft guidelines constituted an important step forward in the preparation of a draft set of guidelines for the Working Group.

182. Some delegations expressed the view that, while the proposal by the Chair of the Working Group for the consolidation of the set of draft guidelines was a step in the right direction, it was necessary to objectively analyse the results attained and that further discussions and constructive efforts were necessary in order to resolve issues that remained outside the current guidelines.

183. The Committee took note of the working paper by the Russian Federation contained in document A/AC.105/L.290, which included a proposal for establishing a unified centre for information on near-Earth space monitoring under the auspices of the United Nations.

184. The view was expressed that a unified centre of information on monitoring objects and events in near-Earth orbit, as proposed for establishment under the aegis of the United Nations (possibly to be hosted by the Office for Outer Space Affairs) could be in a position to qualitatively enhance the accomplishment of the task of sharing information on, and providing the fullest possible aggregate perception of, the situation in outer space. Such an information platform would logically bring significant enhancements to confidence-building in outer space activities and serve the purpose of safeguarding the common space environment.

185. The view was expressed that the Office for Outer Space Affairs could consider holding informal intersessional consultations with appointed experts from interested member States on issues pertaining to the preliminary and informal determination of

existing and potential options for organizing the United Nations information platform, to be hosted by the Office, which could eventually provide support to States in their dedicated efforts to ensure effective practical implementation of the guidelines on the long-term sustainability of outer space activities. The concept of such a platform, as provided through national input into the discussion on the long-term sustainability of outer space activities, could prove to be useful in practical terms.

186. The view was expressed that there were no internationally agreed procedures for the assignment of international designations to space launches and space objects, and that the Office for Outer Space Affairs could organize consultations on the development of a new international system for the assignment of international designations.

187. Some delegations expressed the view that it was necessary to allow more time for the consideration of the new proposed guidelines, in order to develop an understanding of the concepts and elements they contained.

188. Some delegations expressed the view that the method of work of the Working Group, setting clear objectives to be achieved within set time frames and utilizing expert groups, had proved to be an effective and efficient way for progressing in its work.

189. Some delegations expressed the view that too much emphasis had been put on the work in the expert groups and that discussions should be carried out at the Working Group level, with interpretation services.

190. Some delegations expressed the view that the interests of emerging space nations and developing countries should be adequately reflected in the set of guidelines.

191. Some delegations expressed the view that the set of draft guidelines must in no way and under no circumstances create barriers to the space programmes of new space actors and that, while recognizing the importance of ensuring the sustainability of space activities as a permanent goal, countries with emerging space programmes should not bear the burden imposed by the activities of established spacefaring nations, which date back to the 1950s.

192. Some delegations expressed the view that the set of guidelines should include guidance relevant to small satellites and their operators.

193. Some delegations expressed the view that it was of great importance to strengthen linkages with the work carried out by the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities.

194. The view was expressed that the language of the guidelines should not be streamlined and simplified to the extent that their substance no longer offered practical solutions to real problems relating to the long-term sustainability of outer space activities.

195. The view was expressed that the use of nuclear power sources in outer space should also be considered with regard to implications for the safe and sustainable use of outer space, and that there should be interaction between the Working Group

on the Long-term Sustainability of Outer Space Activities and the Working Group on the Use of Nuclear Power Sources in Outer Space.

196. The view was expressed that the draft set of guidelines contained a number of principles that were already reflected in other international instruments, and that the Working Group should consider that in its discussions.

197. The view was expressed that certain elements of the long-term sustainability of outer space activities, such as space debris mitigation and active debris removal, should also be considered by the Legal Subcommittee.

198. The view was expressed that, while the set of guidelines would be voluntary in nature, States choosing to implement them could also ensure the compliance of non-governmental organizations with the guidelines by enacting national space legislation.

199. Considering the current status of work on the set of draft guidelines on the long-term sustainability of outer space activities, the Committee agreed that it would be advisable for member States to attempt, in all earnest, to finalize the work and have the draft guidelines ready for approval by the Committee, and for referral to the General Assembly for adoption, in 2016. The Committee agreed on the following programme of work for finalizing the report of the Working Group and the set of guidelines:

(a) Member States intending to submit proposals on significant new elements, proposals on structural changes to existing guidelines and/or additional draft guidelines are strongly encouraged to do so by, and preferably prior to, the start of the fifty-second session of the Scientific and Technical Subcommittee, in February 2015;

(b) At the fifty-second session of the Scientific and Technical Subcommittee, in 2015, the Working Group will consider a revised version of the draft report of the Working Group and an updated set of draft guidelines, as well as additional proposals for guidelines, with the understanding that during the session the Working Group should consolidate the text of the draft guidelines, to the extent practicable, by the end of the session. This takes into account the need for the proper consideration of any significant new elements for existing guidelines and/or additional draft guidelines that may be submitted. The Working Group will do its utmost to consolidate the text of the guidelines and the report, and, having achieved such a consolidation, should affirm during the session that it can fully proceed with this workplan and that no revision of the workplan is required;

(c) The fifty-eighth session of the Committee on the Peaceful Uses of Outer Space, in 2015, will be the deadline for proposing significant new elements to existing guidelines and/or additional draft guidelines. The Working Group will consider a revised version of the draft report of the Working Group and an updated set of draft guidelines, as well as additional proposals for guidelines;

(d) At the fifty-third session of the Scientific and Technical Subcommittee, in 2016, the Working Group will consider the draft report of the Working Group and an updated set of guidelines with the aim of decisively moving forward with the finalization process;

(e) At the fifty-ninth session of the Committee, in 2016, the Committee will:

(i) Address, if necessary, any outstanding issues in the Working Group report and the set of guidelines;

(ii) Consider and agree on the form in which the guidelines will be presented to the General Assembly;

(iii) Consider topics for future discussion on the long-term sustainability of outer space activities.

200. The Committee noted that the Chair of the Working Group had encouraged member States to include in their delegations, at the fifty-second session of the Scientific and Technical Subcommittee and at the fifty-eighth session of the Committee, experts who would be able to support and advise their respective delegations in the further development of the set of guidelines.

201. The Committee noted that in accordance with the agreement reached by the Working Group at the fifty-first session of the Scientific and Technical Subcommittee, the Chair of the Working Group would prepare a draft report of the Working Group and an updated set of draft guidelines, incorporating all views expressed and all inputs received before and during the fifty-seventh session of the Committee, for the fifty-second session of the Scientific and Technical Subcommittee, in 2015, and that that report would be made available to delegations in the six official languages of the United Nations before the start of that session.

202. The Committee agreed that in developing the draft report of the Working Group and the updated set of guidelines, the Chair would consult a translation and terminology reference group, consisting of the co-chairs of the four expert groups and first-language speakers of the six official United Nations languages, in order to identify and address questions relating specifically to the translation of and the use of terminology in the set of draft guidelines.

11. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union

203. The Committee took note of the discussion of the Subcommittee under the item on the examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of ITU, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 223-230).

204. The Committee noted the presentation made by the Russian Federation entitled "The effect of the criterion value of single-entry interference on the efficiency of use of the geostationary satellite orbit resource".

205. Some delegations expressed the view that the geostationary orbit was a limited natural resource that was at risk of becoming saturated, thereby threatening the sustainability of outer space activities in that environment; that its exploitation should be rationalized; and that it should be made available to all States, under

equitable conditions, irrespective of their current technical capabilities, taking into particular account the needs of developing countries and the geographical location of certain countries. Those delegations were also of the view that it was important to use the geostationary orbit in compliance with international law, in accordance with the decisions of ITU and within the legal framework established in the relevant United Nations treaties.

206. Some delegations expressed the view that the geostationary orbit provided unique potential for access to communications and information, in particular for assisting developing countries in implementing social programmes and educational projects and for providing medical assistance.

12. Draft provisional agenda for the fifty-second session of the Scientific and Technical Subcommittee

207. The Committee took note of the discussion of the Subcommittee under the item on the draft provisional agenda for the fifty-second session of the Scientific and Technical Subcommittee, as reflected in the report of the Subcommittee (A/AC.105/1065, paras. 231-234).

208. The Committee endorsed the recommendations and decisions on the item made by the Subcommittee and its Working Group of the Whole (A/AC.105/1065, paras. 233-234, and annex I, paras. 8-10).

209. On the basis of the deliberations of the Subcommittee at its fifty-first session, the Committee agreed that the following items should be considered by the Subcommittee at its fifty-second session:

1. General exchange of views and introduction of reports submitted on national activities.
2. United Nations Programme on Space Applications.
3. Space technology for socioeconomic development in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda.
4. Matters relating to remote sensing of the Earth by satellite, including applications for developing countries and monitoring of the Earth's environment.
5. Space debris.
6. Space-system-based disaster management support.
7. Recent developments in global navigation satellite systems.
8. Space weather.
9. Near-Earth objects.
10. Use of nuclear power sources in outer space.

    (Work for 2015 as reflected in the extended multi-year workplan of the Working Group (see A/AC.105/1065, para. 187, and annex II, para. 9))
11. Long-term sustainability of outer space activities.

(Work for 2015 as reflected in the extended multi-year workplan (see para. 199 (b) and (c) above))

12. Examination of the physical nature and technical attributes of the geostationary orbit and its utilization and applications, including in the field of space communications, as well as other questions relating to developments in space communications, taking particular account of the needs and interests of developing countries, without prejudice to the role of the International Telecommunication Union.

(Single issue/item for discussion)

13. Draft provisional agenda for the fifty-third session of the Scientific and Technical Subcommittee, including identification of subjects to be dealt with as single issues/items for discussion or under multi-year workplans.

210. The Committee agreed that the Working Group of the Whole, the Working Group on the Use of Nuclear Power Sources in Outer Space and the Working Group on the Long-term Sustainability of Outer Space Activities should be reconvened at the fifty-second session of the Scientific and Technical Subcommittee.

211. The Committee agreed that the topic for the symposium to be organized in 2015 by the Committee on Space Research, in accordance with the agreement reached by the Subcommittee at its forty-fourth session, in 2007 (A/AC.105/890, annex I, para. 24), should be "Measuring the universe: looking back in time with modern astronomy".

C. Report of the Legal Subcommittee on its fifty-third session

212. The Committee took note with appreciation of the report of the Legal Subcommittee on its fifty-third session (A/AC.105/1067), which contained the results of its deliberations on the items considered by the Subcommittee in accordance with General Assembly resolution 68/75.

213. The Committee expressed its appreciation to Kai-Uwe Schrogl (Germany) for his able leadership during the fifty-third session of the Subcommittee.

214. The representatives of Austria, Brazil, Canada, China, the Czech Republic, Germany, Italy, Japan, Mexico, the Republic of Korea, the Russian Federation, South Africa, the United States and Venezuela (Bolivarian Republic of) made statements under the item. A statement was also made under the item by the representative of Chile on behalf of the Group of Latin American and Caribbean States. During the general exchange of views, statements relating to the item were also made by other member States and by the representative of Morocco on behalf of the Group of African States.

215. Under the item, the Committee heard a presentation entitled "Research on space law in China", by the representative of China.

216. Some delegations drew attention to the need to strengthen interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to synchronize the progressive development of space law with key scientific and technical developments in that area. They also expressed the view that the results

attained by the working groups established under the Scientific and Technical Subcommittee should be submitted officially to the Legal Subcommittee for analysis.

1. Information on the activities of international intergovernmental and non-governmental organizations relating to space law

217. The Committee took note of the discussion of the Subcommittee under the item on information on the activities of international intergovernmental and non-governmental organizations relating to space law, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 33-45).

218. The Committee noted the important role of international intergovernmental and non-governmental organizations and their contribution to its endeavours to promote the development of space law and endorsed the recommendation of the Subcommittee that such organizations should again be invited to report to the Subcommittee at its fifty-fourth session on their activities relating to space law.

219. The Committee noted that, in accordance with the decision of the Subcommittee, the observer for the International Institute for the Unification of Private Law (Unidroit) had apprised the Subcommittee of recent developments in relation to the Protocol to the Convention on International Interests in Mobile Equipment on Matters Specific to Space Assets (A/AC.105/1067, para. 43).

2. Status and application of the five United Nations treaties on outer space

220. The Committee took note of the discussion of the Subcommittee under the item on the status and application of the five United Nations treaties on outer space, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 46-67).

221. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, which had been reconvened under the chairmanship of Jean-François Mayence (Belgium) (A/AC.105/1067, para. 48, and annex I, paras. 7, 9, 10, 15 and 16).

222. The Committee noted with satisfaction that EUTELSAT-IGO had declared its acceptance of the rights and obligations under the Convention on Registration of Objects Launched into Outer Space.

223. Some delegations expressed the view that the Committee should review, update and modify the five treaties, for the purpose of strengthening the guiding principles of outer space activities, in particular those principles that guarantee its peaceful use, strengthen international cooperation, make space technology available to humanity and strengthen the responsibility of States in space activities carried out by both governmental and non-governmental entities.

224. Some delegations expressed the view that the United Nations treaties on outer space constituted a solid legal structure that was crucial for supporting the increasing volume of space activities and for strengthening international cooperation on the peaceful uses of outer space. Those delegations welcomed further adherence to the treaties and hoped that those States that had not yet ratified or acceded to the treaties would consider becoming parties to them.

225. The view was expressed that the work of the Legal Subcommittee should be centred on enhancing the effectiveness of existing outer space treaties and should be carried out with the following key aims: first, to strive for the universal acceptance of and compliance with the outer space treaties; second, to consolidate the implementation of the outer space treaties; and third, to strengthen States' capacity-building in space law.

226. The view was expressed that a universal, comprehensive convention on outer space should be developed with the aim of finding solutions for existing issues, which would allow the international legal regime on outer space to be taken to the next level of its development.

227. The view was expressed that an approach oriented towards a universal, comprehensive convention on outer space would be counterproductive, as the principles contained in the existing space law instruments had established a framework that had encouraged the use and exploration of outer space for both spacefaring and non-spacefaring nations.

228. Some delegations expressed the view that, given the rapid increase in space activities and the emergence of new space actors, more coordination and synergy between the Legal Subcommittee and the Scientific and Technical Subcommittee were needed in order to promote the understanding, acceptance and application of the existing United Nations treaties and to strengthen the responsibility of States in carrying out space activities.

229. The view was expressed that conference room paper A/AC.105/C.2/2014/CRP.18 and Corr.1, which had been made available at the fifty-third session of the Legal Subcommittee, included inaccuracies and unfounded characterizations of the space policy of another member State.

3. Matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union

230. The Committee took note of the discussion of the Subcommittee under the agenda item on matters relating to the definition and delimitation of outer space and the character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of ITU, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 68-85).

231. The Committee endorsed the recommendations of the Subcommittee and its Working Group on the Definition and Delimitation of Outer Space, reconvened under the chairmanship of José Monserrat Filho (Brazil) (A/AC.105/1067, para. 71, and annex II, para. 15).

232. Some delegations expressed the view that the lack of a definition or delimitation of outer space created legal uncertainty concerning the applicability of space law and air law, and that matters concerning State sovereignty and the boundary between airspace and outer space needed to be clarified in order to reduce the possibility of disputes among States.

233. The view was expressed that the assessment of the role of customary law and the potential of "soft law" might be reflected further in particular topics, such as the law applicable to suborbital flights and the definition and delimitation of outer space.

234. Some delegations expressed the view that the Working Group on the Definition and Delimitation of Outer Space should undertake a review of the term "space activities" with the objective of building a consensus, even a preliminary one, while temporarily putting aside the task of defining and delimiting outer space in order to concentrate on defining space activities, which is one of the subjects of regulation by space law.

235. Some delegations expressed the view that the geostationary orbit — a limited natural resource clearly in danger of saturation — must be used rationally and should be made available to all States, irrespective of their current technical capacities. That would give States the possibility of access to the orbit under equitable conditions, bearing in mind, in particular, the needs and interests of developing countries, as well as the geographical location of certain countries, and taking into account the processes of ITU and relevant norms and decisions of the United Nations.

236. Some delegations expressed the view that the geostationary orbit was part of outer space, that it was not subject to national appropriation by a claim of sovereignty, by occupation or by any other means, including by means of use or repeated use, and that its utilization was governed by the Treaty on Principles Governing the Activities of States in the Exploration and Use of Outer Space, including the Moon and Other Celestial Bodies, and the ITU Constitution, Convention and Radio Regulations.

237. The view was expressed that States should seek alternative ways of using the geostationary orbit that were more rational and balanced.

238. Some delegations expressed the view that the utilization by States of the geostationary orbit on the basis of "first come, first served" was unacceptable and that the Subcommittee should therefore develop a legal regime guaranteeing equitable access to orbital positions for States, in accordance with the principles of peaceful use and non-appropriation of outer space, and taking into account the needs and interests of developing countries.

4. National legislation relevant to the peaceful exploration and use of outer space

239. The Committee took note of the discussion of the Legal Subcommittee under the item on national legislation relevant to the peaceful exploration and use of outer space as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 86-99).

240. The Committee welcomed the adoption by the General Assembly of resolution 68/74 on recommendations on national legislation relevant to the peaceful exploration and use of outer space.

241. The Committee noted with satisfaction that States continued to undertake efforts aimed at the development of national space-related regulatory frameworks, in accordance with the United Nations treaties on outer space.

242. The Committee agreed that the general exchange of information on national legislation relevant to the peaceful exploration and use of outer space provided States with a comprehensive overview of the current status of national space laws and regulations and assisted States in understanding the different approaches taken at the national level with regard to the development of national space-related regulatory frameworks.

5. Capacity-building in space law

243. The Committee took note of the discussion of the Subcommittee under the item on capacity-building in space law, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 100-120).

244. The Committee endorsed the recommendations of the Subcommittee on the agenda item (A/AC.105/1067, paras. 110 and 119-120).

245. The Committee agreed that capacity-building, training and education in space law were of paramount importance to national, regional and international efforts to further develop the practical aspects of space science and technology, especially in developing countries, and to increase knowledge of the legal framework within which space activities were carried out.

246. The Committee noted that the exchange of views on national and international efforts to promote a wider appreciation of space law and endeavours such as the series of United Nations workshops on space law and the education curriculum on space law played a vital role in building capacity in space law.

247. The Committee noted that the African Leadership Conference on Space Science and Technology for Sustainable Development had been held in Accra from 3 to 5 December 2013, with a space law session focusing on capacity-building, legal aspects of space debris, obligations of States under international treaties on outer space and national legislation relevant to the peaceful exploration and use of outer space from an African perspective.

248. The Committee noted with appreciation that the Office for Outer Space Affairs, together with the Government of China, the China National Space Administration and APSCO, was preparing the ninth United Nations workshop on space law, to be held in Beijing from 17 to 21 November 2014.

249. The Committee noted with satisfaction the completion of the education curriculum on space law, which constituted a dynamic educational tool that could be easily used by educators from different professional backgrounds.

250. The Committee also welcomed the web-based compilation of reading materials, accessible on the website of the Office for Outer Space Affairs, which would be updated as new or additional materials were identified.

251. The Committee noted with appreciation the offer conveyed by Canada on behalf of the Institute of Air and Space Law of McGill University to contribute to the introduction and teaching of the curriculum at the regional centres for space science and technology education, affiliated to the United Nations, at no cost to the Office for Outer Space Affairs.

6. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space

252. The Committee took note of the discussion of the Subcommittee under the item on the review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 121-132).

253. Some delegations expressed the view that it was exclusively States, irrespective of their level of social, economic, scientific or technical development, that had an obligation to engage in regulatory activity associated with the use of nuclear power sources in outer space and to adapt national legislation to relevant international standards. Those delegations were also of the view that Governments bore international responsibility for national activities involving the use of nuclear power sources in outer space conducted by governmental and non-governmental organizations and that such activities must be beneficial, not detrimental, to humanity.

254. Some delegations called on the Legal Subcommittee to undertake a review of the Safety Framework for Nuclear Power Source Applications in Outer Space and to promote binding standards with a view to ensuring that any activity conducted in outer space was governed by the principles of preservation of life and maintenance of peace.

255. Some delegations expressed the view that there should be greater coordination and interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to promote greater understanding, acceptance and implementation of the legal instruments and the development of new legal instruments related to the use of nuclear power sources in outer space.

7. General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee

256. The Committee took note of the discussion of the Legal Subcommittee under the item on the general exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee, as reflected in the report of the Legal Subcommittee (A/AC.105/1067, paras. 133-156).

257. The Committee endorsed the decisions of the Subcommittee as contained in its report (A/AC.105/1067, paras. 154-156).

258. The Committee noted the increasing amount of space debris and noted with satisfaction that the endorsement by the General Assembly, in its resolution 62/217, of the Space Debris Mitigation Guidelines of the Committee on the Peaceful Uses of Outer Space[1] was a key step in providing all spacefaring nations with guidance on how to mitigate the problem of space debris, and encouraged Member States to consider voluntary implementation of the Guidelines.

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[1] *Official Records of the General Assembly, Sixty-second Session, Supplement No. 20* (A/62/20), paras. 117 and 118 and annex.

259. The Committee noted with satisfaction that some States had taken measures to enforce the implementation of internationally recognized guidelines and standards relating to space debris through relevant provisions in their national legislation.

260. The Committee had before it a conference room paper containing a compendium of space debris mitigation standards adopted by States and international organizations, submitted by Canada, the Czech Republic and Germany (A/AC.105/2014/CRP.13).

261. The Committee expressed its appreciation to Canada, the Czech Republic and Germany for the development of the compendium and requested the Secretariat to maintain the compendium on a dedicated page of the website of the Office for Outer Space Affairs.

262. The Committee agreed that member States of the Committee and international intergovernmental organizations with permanent observer status with the Committee should be invited to provide or update the information on any legislation or standards adopted with regard to space debris mitigation, using the template provided for that purpose. The Committee also agreed that all other States Members of the United Nations should be invited to contribute to the compendium, encouraging States with such regulations or standards to provide information on them. The updated compendium should be made available to the Legal Subcommittee at its fifty-fourth session, in 2015.

263. Some delegations expressed the view that it was necessary to strengthen the interaction between the Scientific and Technical Subcommittee and the Legal Subcommittee in order to synchronize the progressive development of space law with major progress in space science and technology, and that outcomes of the work of working groups of the Subcommittee, in particular the Space Debris Mitigation Guidelines of the Committee, should be officially presented to the Legal Subcommittee for legal analysis regarding compliance with principles on outer space.

264. Some delegations expressed the view that the Legal Subcommittee should develop legal mechanisms to deal with the issue of space debris and consequences arising from collisions with space debris or their re-entry into the atmosphere.

265. Some delegations expressed the view that the Space Debris Mitigation Guidelines of the Committee should be given a higher legal status, which might help to reinforce the regulatory framework at the global level.

266. The view was expressed that the Space Debris Mitigation Guidelines of the Committee had proved to be important mechanisms for international cooperation to address major opportunities and challenges in the peaceful exploration and use of outer space.

267. The view was expressed that spacefaring nations should adopt safeguards to control and prevent the generation of space debris, and should provide reliable information to enable timely assessment of risks from the re-entry of space debris into the atmosphere.

268. The view was expressed that the Legal Subcommittee should consider the issues in respect of active removal of space debris and the further development of mitigation norms.

8. General exchange of information on non-legally binding United Nations instruments on outer space

269. The Committee took note of the discussion of the Subcommittee under the item on general exchange of information on non-legally binding United Nations instruments on outer space, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 157-174 and 192-197).

270. The Committee endorsed the decisions of the Subcommittee as contained in its report (A/AC.105/1067, paras. 169-197).

271. The Committee noted with satisfaction that some States had taken measures to implement internationally recognized guidelines, principles and standards through relevant provisions in their national legislation, and thus non-binding international norms had become an integral part of their national legislation.

272. Some delegations expressed the view that existing non-legally binding United Nations instruments related to space activities had played an important role in complementing and supporting the United Nations treaties on outer space, and that they continued to play a significant role as an effective means to address emerging issues and served as a basis to ensure the safe and sustainable use of outer space.

273. The view was expressed that non-legally binding principles and technical guidelines developed by the Committee, such as the Space Debris Mitigation Guidelines of the Committee and the Principles Relating to Remote Sensing of the Earth from Outer Space, had proved to be important mechanisms for international cooperation to address major opportunities and challenges in the peaceful exploration and use of outer space.

274. The view was expressed that the discussion under the item should be focused on exchanges of information and experience by States on space "soft law" rules, and should avoid having a negative impact on the will of countries to conclude and implement such rules. The delegation expressing that view was also of the view that the drafting and implementation of non-legally binding instruments on outer space should be carried out on the basis of existing United Nations treaties, principles and declarations on outer space, should take fully into account the needs and interests of the developing countries, should not exceed countries' current capacity to develop space technologies or their level of management of space activities, and should not seek to introduce standards or requirements that were difficult to implement.

275. The view was expressed that non-legally binding instruments would be able to play an important role in making up for a lack of existing international legal instruments on outer space, and that such non-legally binding instruments should be adopted on the basis of consensus among all States members of the Committee in order for such instruments to be applicable to spacefaring and non-spacefaring countries.

9. Review of international mechanisms for cooperation in the peaceful exploration and use of outer space

276. The Committee took note of the discussion of the Legal Subcommittee under the item on the review of international mechanisms for cooperation in the peaceful exploration and use of outer space, in accordance with its five-year workplan, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 175-187).

277. The Committee endorsed the decisions and recommendations of the Subcommittee and its Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space, which had been established by the Subcommittee at its fifty-third session, under the chairmanship of Setsuko Aoki (Japan) (A/AC.105/1067, para. 177, and annex III, paras. 9-10).

278. The Committee noted that the review of the mechanisms for cooperation in space activities would continue to assist States in understanding the different approaches to cooperation in space activities and would contribute to the further strengthening of international cooperation in the exploration and peaceful uses of outer space. In that regard, the Subcommittee recalled that 2017, the final year of consideration of the agenda item, according to its workplan, coincided with the fiftieth anniversary of the Outer Space Treaty.

279. The Committee noted the breadth and diversity of the mechanisms utilized in space cooperation, including multilateral and bilateral legally binding agreements; non-legally binding arrangements, principles and technical guidelines; multilateral coordination mechanisms through which space-system operators coordinated the development of applications of space systems for the benefit of the environment, human security and welfare, and development; and a variety of international and regional forums.

280. The Committee noted with satisfaction that the exchange of information under the new agenda item on a broad range of international cooperative mechanisms employed by States members of the Committee with a view to identifying common principles and procedures was of major significance to member States as they considered relevant mechanisms to facilitate future cooperation in the exploration and peaceful uses of outer space.

281. The Committee noted that the set of questions prepared by the Working Group (A/AC.105/1067, annex III, para. 10) constituted a tool to enable the Working Group to meet its objectives under its multi-year workplan, and that States members and permanent observers of the Committee were encouraged to refer to the set of questions, as appropriate and on a voluntary basis, for guidance on their contributions to the work of the Working Group.

10. Draft provisional agenda for the fifty-fourth session of the Legal Subcommittee

282. The Committee took note of the discussion of the Subcommittee under the item on the draft provisional agenda for the fifty-fourth session of the Legal Subcommittee, as reflected in the report of the Subcommittee (A/AC.105/1067, paras. 191-202).

283. On the basis of the deliberations of the Legal Subcommittee at its fifty-third session, the Committee agreed that the following substantive items should be considered by the Subcommittee at its fifty-fourth session:

Regular items

1. General exchange of views.
2. Information on the activities of international intergovernmental and non-governmental organizations relating to space law.

3. Status and application of the five United Nations treaties on outer space.

4. Matters relating to:

   (a) The definition and delimitation of outer space;

   (b) The character and utilization of the geostationary orbit, including consideration of ways and means to ensure the rational and equitable use of the geostationary orbit without prejudice to the role of the International Telecommunication Union.

5. National legislation relevant to the peaceful exploration and use of outer space.

6. Capacity-building in space law.

Single issues/items for discussion

7. Review and possible revision of the Principles Relevant to the Use of Nuclear Power Sources in Outer Space.

8. General exchange of information and views on legal mechanisms relating to space debris mitigation measures, taking into account the work of the Scientific and Technical Subcommittee.

9. General exchange of information on non-legally binding United Nations instruments on outer space.

Items considered under workplans

10. Review of international mechanisms for cooperation in the peaceful exploration and use of outer space.

    (Work for 2015 as reflected in the multi-year workplan in the report of the Legal Subcommittee on its fifty-first session (A/AC.105/1003, para. 179))

New items

11. Proposals to the Committee on the Peaceful Uses of Outer Space for new items to be considered by the Legal Subcommittee at its fifty-fifth session.

284. The Committee agreed that the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space, the Working Group on Matters Relating to the Definition and Delimitation of Outer Space and the Working Group on the Review of International Mechanisms for Cooperation in the Peaceful Exploration and Use of Outer Space should be reconvened at the fifty-fourth session of the Legal Subcommittee.

285. The Committee also agreed that the Subcommittee should review, at its fifty-fourth session, the need to extend beyond that session the mandate of the Working Group on the Status and Application of the Five United Nations Treaties on Outer Space.

286. Some delegations expressed the view that the proposal by Germany for the renewal of the structure of the agenda and organization of work of the Legal

Subcommittee, as contained in document A/AC.105/C.2/L.293/Rev.2, constituted a timely and constructive effort to simplify the structure of the Subcommittee's agenda and to make more efficient use of its sessions.

287. Some delegations welcomed the German proposal as the first step towards revitalizing and strengthening the functionality of the Legal Subcommittee and expressed the view that further consultations on the proposal would be necessary in order for the Legal Subcommittee to arrive at a consensus.

288. Some delegations requested the creation of the forums that would be necessary in order to continue and increase debate between States at the fifty-seventh session and future sessions, with a view to establishing a formal dialogue that would lead to the strengthening and revitalization of the Legal Subcommittee.

289. Some delegations called for streamlining and improving the work of the Committee and its subsidiary bodies. Those delegations expressed the view that the work of the Legal Subcommittee should be reinforced by giving priority to the substantive issues aimed at strengthening the international legal framework.

290. The view was expressed that the work of the Legal Subcommittee should be centred on striving towards universal adherence to the outer space treaties, consolidating the implementation of those treaties and strengthening capacity-building in space law, and that decisions in the Subcommittee should be taken by consensus.

291. The view was expressed that, with a view to increasing the productivity of the Legal Subcommittee, the organization of work under each agenda item should be reviewed and clear objectives and time frames for their achievement should be set.

292. The view was expressed that the adoption of instruments by a qualified majority instead of by consensus should be considered in order to further develop legally binding norms of space law.

293. The view was expressed that the duration of the sessions of the Legal Subcommittee should remain unchanged.

294. The Committee agreed that IISL and the European Centre for Space Law should be invited to organize a symposium on space law at the fifty-fourth session of the Subcommittee.

D. Space and sustainable development

295. The Committee considered the agenda item entitled "Space and sustainable development", in accordance with General Assembly resolution 68/75.

296. The representatives of Canada, Egypt, Germany, India, Iran (Islamic Republic of), Japan, Mexico, Pakistan, the Republic of Korea, Romania, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

297. The Committee had before it a conference room paper entitled "Update on the recent developments in the context of the United Nations Conference on Sustainable Development and the post-2015 development agenda" (A/AC.105/2014/CRP.15).

298. The Committee heard the following presentations:

(a) "Using Indian Earth observation data for resource conservation and sustainable development planning", by the representative of India;

(b) "Space infrastructure development for social needs", by the representative of Mexico;

(c) "Use of Earth observation data for emergency management and situation awareness", by the representative of Italy.

299. The Committee recalled paragraph 274 of the outcome document of the United Nations Conference on Sustainable Development, entitled "The future we want" (General Assembly resolution 66/288, annex), in which the Conference had recognized the importance of space-technology-based data, in situ monitoring and reliable geospatial information for sustainable development policymaking, programming and project operations.

300. The Committee noted the value of space technology and applications and space-derived data and information in contributing to sustainable development, including in the areas of land and water management, marine and coastal ecosystems, health care, climate change, disaster risk reduction and emergency response, energy, navigation, seismic monitoring, management of natural resources, biodiversity, agriculture and food security.

301. Under a special theme on marine and coastal ecosystems, the Committee noted a feasibility study undertaken in Canada for a microsatellite that would assess the health of coastal and inland waters by providing ecological information on coastal waters; monitoring hazards, discharges, effluents and pollution events; assessing the well-being of marine coastal ecosystems; and detecting, monitoring and predicting harmful algal blooms.

302. The Committee commended the Secretariat for continuously providing updates on the implementation of the outcomes of the United Nations Conference on Sustainable Development at the intergovernmental level and the formulation of the post-2015 development agenda, as contained in conference room papers A/AC.105/2013/CRP.7, A/AC.105/2014/CRP.15 and A/AC.105/C.1/2014/CRP.21.

303. The Committee encouraged member States to liaise nationally with their respective authorities and departments responsible for the intergovernmental processes related to the Conference and the post-2015 development agenda in order to promote the inclusion in those processes of the relevance of space science and technology applications and the use of space-derived geospatial data.

304. In that connection, the Committee recognized the fundamental significance of space-derived information and data for global, regional, national and local management of sustainability, and stressed the need to recognize the contribution of space for the formulation of policies and programmes of action, as well as their subsequent implementation. The Committee therefore agreed that a written communication should be sent to member States and key policymaking United Nations bodies and institutions responsible for the sustainable development and use of humankind's natural and environmental resources to facilitate the creation of adequate patterns of representation and institutional integration of space-related

capacities into international, regional, national and local sustainable development processes.

305. The Committee requested the Office for Outer Space Affairs to continue taking an active part in the United Nations System Task Team on the Post-2015 United Nations Development Agenda and other inter-agency mechanisms for the processes related to the United Nations Conference on Sustainable Development and the post-2015 development agenda, within its capacities, in order to promote the inclusion of space-related references and elements in the documentation generated by the United Nations Secretariat under those processes.

306. The Committee endorsed the recommendation of the Scientific and Technical Subcommittee at its fifty-first session (A/AC.105/1065, annex I, para. 3) relating to the discussion paper submitted by Japan entitled "Draft proposed workplan for a mechanism of cooperative deliberation for 'space and sustainable development': bridging the Committee on the Peaceful Uses of Outer Space and the Scientific and Technical Subcommittee" (A/AC.105/C.1/2014/CRP.22).

307. The Committee agreed in that regard that the method of work under the multi-year workplan would be revisited by the Working Group of the Whole at the fifty-second session of the Scientific and Technical Subcommittee. The Committee agreed to request the Secretariat to present for the Subcommittee's fifty-second session, in consultation with the delegation of Japan, a conference room paper outlining a proposed method of work under the multi-year workplan for consideration by the Working Group of the Whole, taking into account the status of the two parallel global processes in New York and the role of the outcome document of the United Nations Conference on Sustainable Development, in view of the forthcoming sustainable development goals and the post-2015 development agenda process.

308. The view was expressed that the synchronicity of the post-2015 development agenda process with the post-2015 framework for disaster risk reduction and the development and planned adoption of the climate change agreement in Paris in 2015 opened up valuable possibilities for harmonization and simplification.

309. The view was expressed that the Committee should appeal to the organs and bodies with global responsibilities for sustainability to institutionally root the subject of outer space in the pertinent structures, processes and areas of responsibility. The delegation expressing that view was also of the view that the Committee should also appeal to regional organizations to develop, strengthen and integrate space capacities into regional sustainability-related cooperation processes; to national Governments and local authorities to capacitate national and local authorities to work with space in an integrated manner; and to the international space community to recognize the new identity of outer space as being "for the people and with the people".

310. The Committee noted with satisfaction that the Secretariat had established a page on its website dedicated to space and development, which contained documents relating to the use of space technology for sustainable development.

311. The Committee noted the continued role played by the International Space Station in education and outreach to educational communities worldwide.

312. The Committee noted with satisfaction the large number of outreach activities carried out at the regional level for building capacity through education and training in using space science and technology applications for sustainable development. The Committee noted with appreciation the role played by the regional centres for space science and technology education, affiliated to the United Nations, in space-related education.

313. The Committee noted the information provided by States on their actions and programmes aimed at increasing awareness and understanding in society of the applications of space science and technology for meeting development needs.

314. The Committee took note of a number of space-related conferences, competitions, exhibitions, symposiums and seminars worldwide connecting educators and students and providing them with training and educational opportunities.

315. The Committee noted that the Government of Japan had invited delegations to contribute to the Third World Conference on Disaster Risk Reduction, to be held in Sendai, Japan, from 14 to 18 March 2015, to promote the role of space-based applications in reducing vulnerabilities of populations and infrastructure.

E. Spin-off benefits of space technology: review of current status

316. The Committee considered the agenda item entitled "Spin-off benefits of space technology: review of current status", in accordance with General Assembly resolution 68/75.

317. The representatives of Canada, Burkina Faso, Germany, Italy, Japan, Mexico, the Russian Federation and the United States made statements under the item. The observer for EURISY also made a statement under the item.

318. Under the item, the Committee heard a presentation entitled "Presentation of the Global Navigation Satellite System Continuously Operating Reference Station (GNSS CORS) network of Burkina Faso", by the representative of Burkina Faso.

319. The Committee took note of the information provided by States on their national practices regarding spin-offs of space technology that had resulted in the introduction of strategies for the management of regional economic development, as well as useful innovations in numerous scientific and practical areas of civil society, such as medicine, biology, chemistry, nanotechnology, astronomy, agriculture, geology, cartography, air, land, marine and commercial space transportation, protection of intellectual property rights and commercial licensing, land-use planning for urban and rural development, robotics, firefighting, the development of data-processing hardware and software, mining, the protection of nature, renewable energy, and the production and transportation of energy.

320. The Committee noted that spin-offs of space technologies were particularly important and contributed greatly to developing countries' efforts in providing timely health care through increased access to tele-epidemiology and telemedicine communication services, and in the administration of cartography and geologic surveys that had resulted in greater protection of land rights. The Committee also

noted that space-derived benefits had supported infrastructure development and contributed to the peaceful resolution of property-related disputes.

321. The Committee agreed that spin-offs of space technology constituted a powerful engine for technological innovation and growth in both the industrial and service sectors and that they could be beneficially applied to achieve social and economic objectives and the development of national communications infrastructure, and could also be applied in projects aimed at achieving sustainable development.

322. The Committee noted that Governments had developed national policies directed specifically to implementing space-derived technologies in efforts to link national regions and improve efficiencies in the infrastructure, transportation and industrial development sectors.

323. The Committee agreed that spin-offs of space technology should be further promoted because they had fostered the development of innovative technologies in other sectors, thus advancing economies and contributing to the improvement of quality of life.

324. The Committee noted that Governments had successfully involved non-governmental entities in studies to measure the economic importance of spillovers from the space sector and in various projects regarding the assessment of end-user requirements and the practical commercial and industrial implementation of spin-offs of space technology.

325. The NASA publication *Spinoff 2013* was made available to the Committee.

F. Space and water

326. The Committee considered the agenda item entitled "Space and water", in accordance with General Assembly resolution 68/75.

327. The representatives of Egypt, India, Iraq, Japan, the Republic of Korea, the Syrian Arab Republic and the United States made statements under the item. A statement was also made by the representative of Chile on behalf of the Group of Latin American and Caribbean States. A statement was also made by the observer for PSIPW. During the general exchange of views, statements relating to the item were also made by other member States.

328. The Committee heard the following presentations:

(a) "Use of Earth observation data for water resources assessment and management in India", by the representative of India;

(b) "Management of water resources by remote sensing in Syria", by the representative of the Syrian Arab Republic.

329. In the course of the discussion, delegations reviewed national and cooperative water-related activities, giving examples of national programmes and bilateral, regional and international cooperation.

330. The Committee noted that water-related issues were becoming some of the most critical environmental problems facing humankind, often entailing political

implications, and that the conservation and proper utilization of existing water resources were of paramount importance for sustaining life on Earth. In that connection, space-derived data could support policymakers in making informed decisions on water resources management.

331. The Committee noted that a large number of space-borne platforms addressed water-related issues and that space-derived data were used extensively in water management. The Committee also noted that space technology and applications, combined with non-space technologies, played an important role in addressing many water-related issues, including understanding and observation of global water cycles and unusual climate patterns, mapping of water courses, monitoring and mitigation of the effects of floods, droughts and earthquakes and improvement of the timeliness and accuracy of forecasts.

332. The Committee noted with satisfaction the successful completion of the third International Conference on the Use of Space Technology for Water Management, jointly organized by the United Nations, Morocco and PSIPW and co-sponsored by ESA, ISNET and the Group on Earth Observations (GEO), which had been held in Rabat from 1 to 4 April 2014. The Committee further noted that the Conference had provided a valuable platform for scientists, researchers and subject experts from around the world to discuss cooperation, capacity-building and future challenges for water resource management.

333. The Committee noted with satisfaction the successful completion of the Central American expert meeting on the use of space-based information in early warning systems in San Salvador, on 31 March and 1 April 2014, and also noted that the improvement of early warning systems operated at the national and local-community levels was important for mitigating flood- and water-related risks to vulnerable populations and for developing effective responses to natural disasters.

334. The Committee noted that the Asian Water Cycle Initiative, a GEO endeavour, was developing an information system of systems to promote the implementation of integrated water resources management through the integration and sharing of data as a basis for appropriate decision-making with regard to national water policies in 20 Asian countries. The Committee further noted that the first Global Earth Observation System of Systems (GEOSS) Joint Asia-Africa Water Cycle Symposium, organized by the University of Tokyo and GEO, had been held in Tokyo from 25 to 27 November 2013, focusing on the coordination and common approaches of activities for addressing integrated water resource management in the context of climate change.

G. Space and climate change

335. The Committee considered the agenda item entitled "Space and climate change", in accordance with General Assembly resolution 68/75.

336. The representatives of Egypt, India, Japan, Mexico, Portugal and the United States made statements under the item. A statement was also made by the representative of Chile on behalf of the Group of Latin American and Caribbean

States. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

337. The Committee noted that climate change was an urgent issue and one of the greatest challenges of our time. It was a cross-cutting issue that negatively affected all regions of the world, especially developing countries, through a variety of processes such as global warming, global sea-level rise, melting of sea ice in polar caps and glaciers, and more intense weather and climate events, including droughts, extratropical storms and tropical cyclones, which led to heavier floods and landslides. In that regard, the Committee noted that climate change represented a significant challenge to achieving sustainable development.

338. The Committee recognized that it had an important role to play and should devote more attention to promoting the use of space applications for adaptation to climate change in order to minimize its adverse impacts and to take advantage of opportunities made available by the space community, particularly in the most vulnerable sectors, namely water resources, agriculture, forests and coastal zones, and in the reduction of risks associated with disasters having natural causes.

339. The Committee noted that satellite observations and space-derived data were key tools to monitor the effects of climate change and its impacts on bio-geophysical systems and socioeconomic sectors. Space observations had provided critical information for understanding and modelling the Earth system and would play a larger role as additional indicators of climate change were documented. Together with ground-based observations, space-derived data provided an integrated perspective on the changing environment of the Earth and an understanding of the implications of global climate change for humankind. In that regard, the Committee noted that satellite data were also crucial in the development of international assessments, such as the fifth assessment report of the Intergovernmental Panel on Climate Change (IPCC).

340. The Committee recognized the importance of such initiatives as Space Applications for Environment (SAFE), established through the activities of APRSAF, to encourage environmental monitoring for climate change mitigation and adaptation studies using space applications.

341. The Committee noted efforts to support activities related to climate change conducted by GEO and the Committee on Earth Observation Satellites, and contributions to the global climate change mitigation and adaptation actions under the United Nations Framework Convention on Climate Change and the United Nations Convention to Combat Desertification in Those Countries Experiencing Serious Drought and/or Desertification, Particularly in Africa.

342. The Committee noted activities of member States on the use of satellites to monitor emissions of greenhouse gases and aerosols, to measure carbon dioxide and methane and several other essential climate variables, and to monitor forests, oceans and droughts. The Committee noted that satellites launched by many nations since the early 1970s had documented long-term global indicators of climate change and were revealing alarming global trends.

343. The Committee noted that several member States had launched or planned to launch Earth observation satellites to track the manifestations and effects of climate change. The Committee also noted a number of cooperative efforts between the

space agencies of several countries to launch satellites to monitor the impact of climate change and the parameters related to it.

344. The view was expressed that the Committee could contribute to strengthening the capacity of member States in the use of space science and technology and space applications to monitor the impacts of and adaptation to climate change in various systems and sectors. Deliberations in the Committee were also seen as essential for enhancing global cooperation in information-sharing and in the use of space technology for understanding and managing the challenge of climate change.

H. Use of space technology in the United Nations system

345. The Committee considered the agenda item entitled "Use of space technology in the United Nations system", in accordance with General Assembly resolution 68/75.

346. The representatives of Germany and Japan made statements under the item. The observers for ESCAP and ESCWA also made statements. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

347. The Committee heard a presentation entitled "Promoting regional cooperation for effective use of space technology for sustainable development in Asia and the Pacific", by the observer for ESCAP.

348. The Director of the Office for Outer Space Affairs made a statement informing the Committee about the outcomes of the thirty-fourth session of the United Nations Inter-Agency Meeting on Outer Space Activities (UN-Space), held in New York on 13 and 14 May 2014. The Committee had before it the report of the Inter-Agency Meeting on that session (A/AC.105/1064).

349. The Committee noted that the thirty-fourth session of UN-Space had been held in conjunction with the fourteenth plenary meeting of the United Nations Geographic Information Working Group (UNGIWG). The Committee also noted that a joint UN-Space/UNGIWG meeting had been held in the afternoon of 14 May 2014.

350. The Committee welcomed with appreciation the report of the Secretary-General on the coordination of space-related activities within the United Nations system: directions and anticipated results for the period 2014-2015 — addressing the post-2015 development agenda (A/AC.105/1063). The Committee noted the recommendations on harnessing space technology for the attainment of objectives of the post-2015 development agenda, contained in paragraph 78 of that report.

351. The Committee welcomed the agreement of UN-Space that its next special report, to be prepared in 2015, should address the theme of space for global health. The Committee recalled that previous special reports of the Inter-Agency Meeting had covered the following themes: "New and emerging technologies, applications and initiatives for space-related inter-agency cooperation" (A/AC.105/843), "Space benefits for Africa: contribution of the United Nations system" (A/AC.105/941), "Space and climate change" (A/AC.105/991) and "Space for agriculture development and food security" (A/AC.105/1042).

352. The Committee noted that UN-Space had adopted a flexible approach to the setting of its agenda in order to be more adaptive to current needs and interests of participating United Nations entities. The Committee also noted that UN-Space had decided to include in the agenda for its next session, in 2015, an exchange of views and information on the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189), pertaining to the coordination of activities of United Nations entities, in line with the overall recommendations of the report as endorsed by the General Assembly in its resolution 68/50.

353. The Committee noted with satisfaction that the eleventh open informal session of the Inter-Agency Meeting on Outer Space Activities had been held by the Office for Outer Space Affairs in New York on 14 May 2014, focusing on the theme "Engaging space tools for development on Earth: contribution of space technology and applications to the post-2015 development agenda" (see A/AC.105/2014/CRP.9).

354. The Committee noted that the open informal session had provided a multidimensional perspective on examples of how the wide range of space technology applications, involving Earth observation, GNSS, telecommunication and telemedicine, as well as other sources of geospatial information, were being used as enablers and means of implementation of sustainable development objectives, including the improvement of the resilience of populations and infrastructures, and in carrying out the post-2015 development agenda process. The Committee encouraged member States to continue to participate actively in the open informal sessions of the Inter-Agency Meeting.

355. The Committee noted the cooperative efforts between member States and United Nations entities to promote the use of space technology to resolve global issues faced by humanity, including in building nations' resilience to multiple shocks. In that connection, the Committee took note of the Asia-Pacific Plan of Action for Applications of Space Technology and Geographic Information Systems for Disaster Risk Reduction and Sustainable Development, 2012-2017, adopted by ESCAP at its sixty-ninth session, as well as activities under the ESCWA subprogramme on information and communications technology for regional integration.

356. The Committee noted that ESCAP would organize a ministerial conference to evaluate the progress made in implementing the above-mentioned Asia-Pacific Plan of Action. The Committee further noted that the first regional expert group meeting on space and satellite technologies for development in the Arab region would be organized by ESCWA in 2015.

357. The Committee noted that the thirty-fifth session of UN-Space could be organized jointly with UNGIWG and/or the secretariat for the United Nations Initiative on Global Geospatial Information Management; or could be hosted by ESCAP if held in conjunction with a meeting of the Commission involving its member States. In that regard, the Committee noted with appreciation the proposal of ESCAP to host the thirty-fifth session, in 2015. The Committee noted that the Office for Outer Space Affairs, in its capacity as the secretariat of the Inter-Agency Meeting, would identify, in the intersessional period, the host for the thirty-fifth session of UN-Space.

358. The Committee agreed that if it were not possible to hold the thirty-fifth session of UN-Space before the holding of the fifty-eighth session of the Committee in 2015, the UN-Space report on its thirty-fifth session should be made available to the Committee at its session in 2016.

359. The Committee requested the Office for Outer Space Affairs to further promote, through United Nations entities, increased practical application of space science and technology for development, in view of the catalytic role that such application could play for development in the post-2015 context.

I. Future role of the Committee

360. The Committee considered the agenda item entitled "Future role of the Committee", in accordance with General Assembly resolution 68/75.

361. The representatives of Algeria, Austria, Belgium, Canada, China, Japan, Mexico, Romania, the Russian Federation, Switzerland, the United Kingdom, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

362. The Committee noted that many issues related to its future role had already been addressed under other agenda items and would therefore be reflected in other parts of the present report.

363. The Committee agreed that it constituted, together with its Scientific and Technical Subcommittee and Legal Subcommittee, a unique common platform for promoting international cooperation in the peaceful uses of outer space at the global level, and therefore interaction between the three bodies on the cross-cutting issues before them should be enhanced, as appropriate.

364. The view was expressed that the Committee and its Subcommittees should strive for a closer dialogue with the main regional policymaking mechanisms for space cooperation and coordination and should continue to assess their role and their work, in view of the continuously changing environment surrounding the peaceful uses of outer space and the increasing number of countries and non-governmental entities involved. In that regard, it was important that the Committee examine forms of cooperation to advance space utilization, with special attention to the collaboration of spacefaring and non-spacefaring nations to bridge the development gap, and that it assess how knowledge and expertise could be made available globally at the request of emerging space nations.

365. The view was expressed that the Committee should encourage and support new cross-sectoral collaborative approaches aimed at yielding results, including new cooperative activities that would combine the utilization of GNSS and Earth-observation applications.

366. The view was expressed that with the rapid development of space science and technology and the increasing trend towards the commercialization and privatization of space activities, the Committee was faced with increasing challenges and therefore needed to adapt to such new developments with a view to reinforcing its

prime function of being the driving force in space law development and in regulating space activities.

367. The view was expressed that the Committee should continue to maintain and strengthen its leading role in space law-making, the coordination of international cooperation in space activities and capacity-building in space science and technology applications.

368. The view was expressed that the Committee should foster synergy in the work of various space-related organizations and mechanisms by establishing better communication and interaction and by promoting international cooperation, technology transfer, information-sharing, education and outreach activities in a more proactive and pragmatic manner to ensure sustainable space cooperation and create more opportunities for developing countries to benefit from advances in space science and technology.

369. The view was expressed that there was an objective and logical need to gain better understanding of the importance of ascertaining the legal grounds for and modalities of coercive measures in outer space by way of exercising, in a hypothetical case, the right of self-defence in outer space. There was a need for serious consideration in the Committee and the Legal Subcommittee, both for the sake of better understanding and for joint political action. If a mechanism for resorting to self-defence in outer space were not considered and interpreted, and if at least basic instruments on pivotal aspects of self-defence were not formed, the regulation of the safety of space operations being devised by the Committee and its Scientific and Technical Subcommittee would remain critically vulnerable.

370. Some delegations expressed the view that the Committee should not be engaged in a detailed and substantial consideration of the placement and use of weapons in outer space.

371. The view was expressed that the proposal on the establishment under the auspices of the United Nations of a compact and effective unified centre for information on monitoring objects and events in the near-Earth environment corresponded directly to tasks identified in the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities (A/68/189).

372. The Committee agreed on the importance of considering, under its agenda item entitled "Ways and means of maintaining outer space for peaceful purposes", the broader perspective of space security and associated matters that would be instrumental in ensuring the safe and responsible conduct of space activities, and of identifying effective tools that could potentially provide the Committee with new guidance, in a pragmatic manner and without prejudice to the mandate of other intergovernmental forums. In this context, the Committee observed that a focused consideration of issues pertaining to the application of norms of international law that are relevant for preserving outer space for peaceful purposes could be useful.

373. Fully in line with General Assembly resolution 68/50 on transparency and confidence-building measures in outer space activities, the Committee agreed that at its fifty-eighth session, in 2015, it would consider under its agenda item entitled "Ways and means of maintaining outer space for peaceful purposes" the recommendations contained in the report of the Group of the Governmental Experts

on Transparency and Confidence-Building Measures in Outer Space Activities, with a view to identifying those recommendations that could, to the extent practicable, be adapted to and instrumental for ensuring the safety of space operations and the long-term sustainability of outer space activities in general.

374. The Committee requested the Secretariat to invite States members of the Committee to submit their views on the modalities of making practical use of the recommendations contained in the report of the Group of Governmental Experts as they related to and/or could prove instrumental in ensuring the safety of space operations, and in the context of the ongoing work of the Scientific and Technical Subcommittee Working Group on the Long-term Sustainability of Outer Space Activities, and that replies of member States should be made available for the fifty-second session of the Scientific and Technical Subcommittee and the fifty-fourth session of the Legal Subcommittee, in 2015.

375. The view was expressed that the report of the Group of Governmental Experts on Transparency and Confidence-Building Measures in Outer Space Activities also contained recommendations pertaining, if not to the long-term sustainability of outer space activities, to ways and means of maintaining outer space for peaceful purposes and that, as such, those recommendations should also be considered by the Committee as useful transparency and confidence-building measures.

376. The Committee agreed to continue its consideration of the item at its fifty-eighth session, in 2015, as a single issue/item for discussion.

J. Other matters

377. The Committee considered the agenda item entitled "Other matters", in accordance with General Assembly resolution 68/75.

378. The representatives of Canada, the United States and Venezuela (Bolivarian Republic of) made statements under the item. During the general exchange of views, statements relating to the item were also made by representatives of other member States.

1. Proposed strategic framework for the programme on the peaceful uses of outer space for the period 2016-2017

379. The Committee had before it for its consideration the proposed strategic framework for the programme on the peaceful uses of outer space for the period 2016-2017 (A/69/6 (Prog. 5)). The Committee agreed on the proposed strategic framework.

2. Composition of the bureaux of the Committee and its subsidiary bodies for the period 2016-2017

380. In accordance with General Assembly resolution 68/75 and pursuant to the measures relating to the working methods of the Committee and its subsidiary bodies,[2] as endorsed by the General Assembly in its resolution 52/56, the

[2] *Official Records of the General Assembly, Fifty-second Session, Supplement No. 20* (A/52/20), annex I; see also *Official Records of the General Assembly, Fifty-eighth Session, Supplement*

Committee considered the composition of the bureaux of the Committee and its subsidiary bodies for the period 2016-2017.

381. The Committee noted that the Western European and other States had endorsed the candidature of David Kendall (Canada) for the office of Chair of the Committee for the period 2016-2017 (A/AC.105/2014/CRP.17).

382. The Committee also noted that the Latin American and Caribbean States had endorsed the candidature of Hellmut Lagos Koller (Chile) for the office of Chair of the Legal Subcommittee for the period 2016-2017 (A/AC.105/2014/CRP.18).

383. The Committee noted that the Eastern European States, the African States and the Asia-Pacific States would nominate their candidates for the offices of First Vice-Chair of the Committee, Second Vice-Chair/Rapporteur of the Committee and Chair of the Scientific and Technical Subcommittee, respectively, for the period 2016-2017, before the next session of the Committee, to be held in 2015.

3. Membership of the Committee

384. The Committee welcomed the application of Luxembourg for membership in the Committee (see A/AC.105/2014/CRP.3).

385. The Committee decided to recommend to the General Assembly at its sixty-ninth session, in 2014, that Luxembourg should become a member of the Committee.

4. Observer status

386. The Committee took note of the application of the African Association of Remote Sensing of the Environment for permanent observer status with the Committee. The application and the relevant correspondence were before the Committee in conference room paper A/AC.105/2014/CRP.4.

387. The Committee decided to recommend that the General Assembly, at its sixty-ninth session, in 2014, grant to the African Association of Remote Sensing of the Environment the status of permanent observer with the Committee.

388. In accordance with the request of the Committee at its fifty-sixth session, in 2013, the Secretariat had compiled information on the consultative status with the Economic and Social Council of non-governmental organizations having permanent observer status with the Committee (A/AC.105/2014/CRP.8). The Committee urged non-governmental organizations having permanent observer status with it that had not yet initiated the application process for consultative status with the Council to do so in the near future.

5. Organizational matters

389. The Committee noted that organizational matters and the method of work of the Committee and its Subcommittees had been addressed under other agenda items and would therefore be reflected in other parts of the present report.

No. 20 (A/58/20), annex II, appendix III.

390. The Committee stressed the continuous need for maximum flexibility in the scheduling of agenda items for the sessions of the Committee and its Subcommittees in order to optimize the balance between the consideration of agenda items in plenary meetings and work conducted in working groups.

391. The Committee recalled that the trial period for the discontinuation of unedited transcripts would expire in 2015 and that the Committee at its fifty-eighth session and Legal Subcommittee at its fifty-fourth session would evaluate the use of digital recordings (see A/66/20, para. 297, and A/AC.105/C.2/L.282).

392. The Committee noted with satisfaction the work currently being undertaken by the Office for Outer Space Affairs to revitalize and improve the website of the Office.

6. Draft provisional agenda for the fifty-eighth session of the Committee

393. The Committee recommended that the following items be considered at its fifty-eighth session, in 2015:

1. General exchange of views.
2. Ways and means of maintaining outer space for peaceful purposes.
3. Report of the Scientific and Technical Subcommittee on its fifty-second session.
4. Report of the Legal Subcommittee on its fifty-fourth session.
5. Space and sustainable development.
6. Spin-off benefits of space technology: review of current status.
7. Space and water.
8. Space and climate change.
9. Use of space technology in the United Nations system.
10. Future role of the Committee.
11. Other matters.

394. The Committee agreed that the Secretariat should schedule the work of the Committee at its next session, in 2015, in such a manner as to enable the Scientific and Technical Subcommittee Working Group on the Long-term Sustainability of Outer Space Activities to benefit from interpretation services.

395. The Committee noted with satisfaction that a special workshop on space weather was planned to be held on the margins of the fifty-second session of the Scientific and Technical Subcommittee, in 2015.

396. The Committee agreed that a panel discussion addressing sustainable development within the context of the post-2015 development agenda should be organized by the Office for Outer Space Affairs and be held in the Fourth Committee of the General Assembly during the sixty-ninth session of the Assembly, when it considers the item "International cooperation in the peaceful uses of outer space", and that the specific topic of the panel discussion should be determined by the Office.

K. Schedule of work of the Committee and its subsidiary bodies

397. The Committee agreed on the following tentative timetable for its session and those of its Subcommittees in 2015:

	Date	*Location*
Scientific and Technical Subcommittee	2-13 February 2015	Vienna
Legal Subcommittee	13-24 April 2015	Vienna
Committee on the Peaceful Uses of Outer Space	10-19 June 2015	Vienna